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ABSTRACT OF

# The Hunterian Lectures

ON

# THE AFTER-EFFECTS OF HEAD INJURIES.

*Delivered at the Royal College of Surgeons of England on Feb. 15th, 17th, and 19th, 1904,*

By T. CRISP ENGLISH, F.R.C.S. Eng.,

HUNTERIAN PROFESSOR OF SURGERY, ROYAL COLLEGE OF SURGEONS OF ENGLAND, ETC.

## LECTURE I.

*Delivered on Feb. 15th.*

MR. PRESIDENT AND GENTLEMEN,—In these lectures which I have the honour to deliver before you I propose to deal with that part of my Jacksonian essay to which I devoted most attention—namely, the after-effects of injuries to the head. The surgery of head injuries dates from the very earliest times; the symptoms of fracture of the base were carefully described by Hippocrates some 25 centuries ago. Yet it is an undeniable fact that of late cerebral surgery, whether concerning injury or disease, has fallen somewhat into the background and that but little progress has been made. The rapid and almost startling advance of abdominal surgery during recent years has exerted a retarding influence upon other branches of surgery; it has overshadowed cerebral surgery, just as it has delayed the development of thoracic surgery. Abdominal surgeons are to be numbered by hundreds, whilst those who devote special attention to the surgery of the brain may almost be counted on the fingers. It is sincerely to be hoped that the present century may see more substantial progress in the treatment of injuries and diseases of the head.

In choosing my subject it occurred to me that the after-effects, the remote consequences, of head injuries had been always somewhat neglected and I therefore determined to study them by the observation of a comparatively large number of cases. The main objects of my investigation have been to find out what becomes of the patients after the first few weeks of treatment, how often and to what extent they suffer from injurious sequelæ, how far their mental powers and their individuality are affected, and what influence these accidents have on their working capacity.

Head injuries are common, yet, as I have said, comparatively little attention has been paid to their remote consequences. There is one noticeable exception to this statement and that is traumatic epilepsy. From the earliest times epilepsy following injuries to the head has occupied a prominent place in surgery and the literature upon the subject is almost more than one man can deal with. The tendency has ever been to devote more attention to the physical than to the mental symptoms. The more obvious effects, such as epilepsy, hemiplegia, and aphasia, have been carefully studied, whilst the minor mental disturbances, the slighter sequelæ which are so common and which mean so much to the patient, are usually dismissed in short paragraphs. Experimental physiology has taught us much of the effects of injury upon the motor and sensory systems; it can teach us but little of the effects upon the mental system and this explains to some extent why this side of the question has been neglected.

For the purposes of these lectures I have collected the notes of 300 patients whose condition I have investigated at some period after their head injury. The greater number of the cases have been seen at St. George's Hospital during the last three years and I have to thank the staff of that hospital for permission to make use of the cases. The cases may be divided into three series: 1. 100 consecutive cases of fracture of the skull examined at intervals of one year or more after the injuries. 2. 100 consecutive cases of concussion, cerebral contusion, and laceration without evidence of fracture examined also at intervals not shorter than one year after the injury. 3. 100 miscellaneous cases other than those included in the first two groups which have come under my notice. For the sake of brevity I shall refer to these series as the first, second, and third series.

The clinical classification of the conditions following head injuries needs much reform and I should like to protest against the very common practice of describing the majority of cases in which there are loss of consciousness and no apparent fracture as cases of concussion. This use of the word is most inaccurate yet it is found in hospital reports of all kinds; to take an example, we are told in one instance that 52 cases of concussion and three of cerebral contusion and laceration were admitted during the year into a certain hospital. With our present knowledge of the symptomatology of cerebral injuries it is clear that many of the injuries described as concussion should have been described as cerebral contusion or laceration. Greater accuracy and discrimination should be observed in the description of these conditions. The fracture cases are not open to this objection, for they represent a fairly definite degree of cranial and cerebral injury, with a comparatively uniform mortality, if large series of cases be taken. An investigation of this kind is certain to be laborious owing to the great difficulty in tracing the cases, for the patients who attend a general hospital in London belong to a class which is constantly fluctuating and moving to other addresses. In about 60 per cent. of the cases, however, I succeeded in tracing the patients. Many of them were seen personally, some could only reply by letter.

The *intervals* elapsing between the accidents and the times at which the patients' conditions were investigated may be summarised as follows. In the first series 25 patients are reported upon after a year's interval, 20 after two years, 18 after three, 26 after four to six years, and 11 after seven to 12 years. In the second series the reports are made at the following intervals: one year in 38 cases, one and a half years in 33 cases, and from two to three years in 29 cases. The miscellaneous series includes patients seen at intervals varying from a few months to 20 years. By a study of the 300 cases as a whole it is therefore possible to follow the course of symptoms through all stages.

In drawing conclusions from these cases it must be remembered that the majority of patients belonged to the labouring classes and were frequently unable or unwilling to submit to adequate treatment after the injury. In the better classes of life, although the injuries are on the whole equally severe, the opportunities for efficient treatment are much greater and injurious after-effects are correspondingly lessened. There is another factor with which I have had to deal and that is the tendency in some patients to exaggerate their symptoms, often in the vague hope of some compensation. I have endeavoured, as far as possible, to bear these factors in mind in discussing the nervous disturbances which may follow injuries to the head.

The first point of interest is to state what proportion of patients suffer from remote consequences after these injuries, and in working out this point I have divided the patients into three classes. In the first class no effects were found, the patients continuing at their work as before the accident and being unable to point out any symptoms which they could ascribe to the head injury. In the second class slight consequences were apparent which, however, did not seriously inconvenience the patient or prevent him from earning a living. In the third class marked effects were present, such as mental impairment, traumatic epilepsy, and conditions which prevented the patient from working. Dividing the cases into these three classes we get the following results:—

| | First series. | Second series. |
|---|---|---|
| Class 1, no effects ... ... ... ... | 31 | 48 |
| Class 2, slight effects ... ... ... ... | 50 | 42 |
| Class 3, marked effects ... ... ... | 19 | 10 |

These figures throw a more serious light on the prognosis of head injuries than is usually recognised but they faithfully represent the results of my investigations. My experience is that some degree of mental impairment, though rarely sufficient to be included under the title of traumatic insanity, occurs in over 10 per cent. of the patients.

I may mention here that 12 patients out of the 200 cases followed up had died. In only one of these was death proved to be the direct result of the head injury, the patient dying in an asylum five years later. Six died from disease, two were killed in other accidents, and in three cases the cause of death was not ascertained. It is highly probable that in another case death was the ultimate consequence of the head injury but I failed to ascertain the actual cause of death; when last seen the patient was suffering from severe traumatic epilepsy and mental impairment.

The chief lesson learnt from the cases was that the great bulk of the patients who suffered from head injuries became absolutely well, provided that they submitted to the necessary period of mental rest after the injury. The reason why so many hospital patients suffer from after-effects is that their treatment is too often too short. Those who suffered from remote consequences, those who gradually drifted, were the patients who returned to their business soon after the accident, before they had completely recovered. The history of these cases was often as follows. The patient said that he had a family to keep and must be at work, that he could not afford to rest; the dangers of his action were pointed out and were ignored. But he found that work required nearly twice as much effort as before and soon headache started and persisted. In about a month or so he consulted a medical man who perhaps said that he wanted a purge and a week-end in the country. But the headache returned and continued and so the case gradually drifted on, the patient being less capable of work, more depressed, slowly tending in the direction of melancholia, and sometimes dementia. Owing, then, to inadequate mental rest recovery is frequently incomplete after fractures of the skull and there is more than an element of truth in the popular idea that "a man is never the same after a head injury." In the out-patient department one is particularly struck with the number of cases applying for the treatment of symptoms consequent on these injuries; and in following up my own cases I was again and again met with the statement on the part of the relatives or friends that the patient "was never the same again."

The third series, the miscellaneous cases, includes a very important group which from their nature are not found in Series 1 and 2. I refer to those very mild forms of concussion in which loss of consciousness lasts a few seconds only or may be practically absent. Their importance has been emphasised by Sir William Bennett. Such cases are rarely admitted into hospital and the apparently trivial nature of the injury usually leads to entire neglect of treatment or to treatment of an entirely inadequate kind. Thus it comes about that grave consequences are more liable to follow the slighter forms of concussion the seriousness of which is overlooked than the more marked cases in which proper treatment is enforced.

Having thus indicated the general results of head injuries I shall now pass to their *effect upon the wage earning capacity* and then deal individually with the various symptoms which have come under my notice. The effect of head injuries upon the wage-earning capacity is a practical question and second to none in importance to the patient. Often he is the breadwinner of the family and we are asked how long it will be before he can return to his work and whether he will be able to do the same amount of work as before the accident. The question is of especial importance from the point of accident insurance, and again it is invariably raised in the litigation which often follows these injuries. I therefore took especial care to inquire into the effects of these injuries upon the patient's work, ascertaining how long they were kept from work and how much work they were able to do later. The results may be summarised as follows. The average interval between the date of the accident and the return to work after simple concussion was four and a half weeks, after cerebral contusion nine and a half weeks, and after a fracture of the skull or cerebral laceration 13 weeks. Only those patients who resumed work within one year are included.

Now as to the ultimate effect on the working capacity. Information upon this point is available in 86 of the fracture cases. 52 of these were doing the same work as before the accident and earning practically the same wages; 13 were doing lighter work, the average fall in wages in the labouring classes being from 27*s.* 6*d.* to 15*s.* a week; seven could only do very little work; eight had been compelled to give up their trade and take to other work; and six were totally disabled from work. Turning to the cases in which there had been loss of consciousness without apparent fracture we obtain the following results in 78 cases: 51 of these were working as well as before; 12 were doing the same work but said that they did not show the same interest and energy as formerly; six were doing lighter work; four could only do a little work; two had given up their trade; and three were totally disabled for work. In 59 per cent., therefore, of the cases in the first series and in 80 per cent. in the second series the injury entailed no marked diminution in the working capacity or loss in wages.

*Effects on Working Capacity.*

| | First series. | Second series. |
|---|---|---|
| No marked effects | 52 | 63 |
| Did lighter work | 13 | 6 |
| Only able to do a little work | 7 | 4 |
| Gave up trade | 8 | 2 |
| Totally disabled | 6 | 3 |
| Total | 86 | 78 |

It will be noticed that in ten cases the patient had to give up his trade and to take to lighter or more suitable work. One of these was a builder and had fits; six had attacks of giddiness in ascending ladders or working at any height; of these six, three were carpenters, one was a bricklayer, and one was a painter; the sixth, a scaffolder, who had sustained a fracture of the base, was readmitted into hospital 16 months later with concussion and a fractured humerus, the result of a fall in an attack of giddiness whilst working on a ladder. Two cabmen had abandoned their cabs on account of giddiness, inability to stand hot weather, and especially owing to difficulty in remembering the names of streets. The last case was that of a police constable, to whom I am referring later.

We see, then, that diminution of the working capacity depends largely on the presence of certain disabilities following the head injury but partly on the particular trade or occupation which the patient is following. After severe head injuries patients are no longer fit to follow certain trades and occupations, especially those which involve ascending heights or which entail great responsibility. Thus the builder's labourer and the bricklayer can no longer with safety ascend ladders and work on scaffolding, the sailor cannot clamber in and out of the rigging, the fireman is untrustworthy at great heights, the engine-driver is no longer to be trusted, for his nerve might fail at any moment. These figures have dealt mainly with the labouring classes, but if we turn to the intellectual workers, to more highly educated patients, we find that the effect upon their work is distinctly more serious. A business man, for instance, who had sustained a severe head injury will not be fit to return to his business for several months and a long interval may elapse before he is capable of intricate calculations; the higher intellectual functions are always the last to be restored and the arithmetical faculty is an excellent example of this. Several of the patients I examined were city clerks and in these, as a rule, twice as long a period of rest was required as in those whose occupation involved purely manual work.

Beneficial effects resulting from head injuries are almost entirely confined to the imaginations of novelists. In real life they are comparatively rare. In this connexion I may mention a remarkable case seen last summer in which concussion caused *inhibition of chorea*. A boy, aged ten years, suffering from concussion, was admitted into St. George's Hospital under the care of Mr. A. Marmaduke Sheild. He had struck his head and had fallen backwards down some stairs. On admission there were marked bruising in the left occipital region and slighter bruising in the left frontal region. For two months preceding the accident he had suffered from chorea, and from the father's description it was clear that the chorea had been severe, affecting the right side of the body mostly. During the time that he was in hospital there were only occasionally very slight choreic movements, a fact which surprised the relatives greatly, and even when he was allowed up there was no return of the symptoms. The situation of the bruising showed that the left cerebral hemisphere must have received the greater part of the shock at the time of the accident, and this is the probable explanation of the inhibition of the right-sided chorea. I have since heard from his father that there was some return of the disease later but in a much milder form.

*The etiological factors* in these cases are numerous and varied. The following are the main conditions which influence the after-progress of patients who have sustained head injuries: (1) the natural temperament of the patient; (2) antecedent state of health; (3) the severity of the injury; (4) the efficacy of treatment adopted after the injury; and (5) other factors such as age, influence of alcohol, and social status of the patient. The natural temperament of the patient is a factor of far-reaching importance. Where there is inherited or acquired nervous instability the results of head injuries are unusually severe and nervous disturbances are apt to be very persistent; indeed, a neurotic inheritance may render the prospects of ultimate

cure almost hopeless. I shall point out in my third lecture that traumatic insanity occurs mainly in patients with a strong predisposition to nervous disturbances; this predisposition is often a more potent factor than the actual injury. The antecedent state of health must be taken into account. With the increasing competition of modern times there is an ever-increasing number of persons who are working at high pressure with inadequate rest and such are least fitted to withstand the effects of cerebral injuries. This remark applies not only to adults; it applies also to young people in whom mental overwork is so common with our modern method of forced education. Previous acute illness, and in particular influenza, will often render the symptoms more serious. The nature and the results of previous treatment must be ascertained. Imperfect recovery after head injuries is most likely to occur in mild cases where the treatment immediately after the injury has been inefficient, and in severe cases where inefficient treatment has occurred at a later period.

I have already stated that I believe that inadequate mental rest is responsible in most cases for imperfect recovery. In again referring to this point I cannot do better than quote the remarks of Hilton: although written some 40 years ago they apply with undiminished force to the present time, for the extreme importance of this principle does not yet appear to have been thoroughly grasped. "Recognised lesions of the brain and its membranes, associated with injuries to the head, do not generally or as a principle of treatment obtain that extent of mechanical rest which is consistent with the expectation of perfect and complete structural repair. This error in the treatment of such cases is one of the chief sources of diseases of the brain. A disturbed brain recovers itself slowly; it soon becomes fatigued after use, and if claims are made upon it too soon after the injury the patient is very likely to suffer from serious consequences."

One other fact comes out strongly in my series of cases and that is, the real importance of operation in all depressed fractures of the vault. In the first series are 21 cases of depressed fractures which had been treated by operation. Of these 15 presented no ill-effects of any kind, three had slight symptoms, and three had marked symptoms; in one of the latter cases fragments of bone had been overlooked at the primary operation and were removed later. There were six cases in which depressed fractures had not been operated upon and five of these patients had not recovered from the effects of their injury. In the third series also there were several instances in which it seemed clear that injurious symptoms would not have resulted if trephining had been performed shortly after the injury; this applies mainly to cases of slightly depressed fractures in which perhaps the damage chiefly involved the inner table of the bone, the external lesion appearing trivial. These results are very striking and point to the importance of the more frequent employment of operative measures in fractures of the vault, even when there is no apparent depression.

In regard to the age of the patient, I have found that injurious effects are most likely to result at two periods, in early life and in old age. The seriousness of severe head injuries in young children seem to lie in their occurrence at a time when the higher intellectual faculties are being developed. It is usually stated that children recover remarkably well from injuries to the head, but my experience has not borne out this statement. We know that injuries to other parts of the body, when in the process of active development, are frequently followed by impairment of growth; injuries to epiphyses afford a striking example of this. It would be logical to expect that injuries to the brain in children would be even more likely to result in some permanent impairment, for its structure is more delicate and its development is more complex than that in any other region. In the aged the powers of recuperation are comparatively feeble and mental defects and impairment of memory are frequent and persistent.

It has been frequently pointed out that one of the strongest hindrances to recovery is the suspense and unsettlement of mind incidental to litigation and disputes as to compensation, and remarkable improvement may follow the termination of legal actions quite apart from the element of malingering.

In proceeding to discuss the individual *symptoms* I must point out that the investigation deals more particularly with those symptoms which, less obvious at first, interfere later with the patient's comfort and ability for work or to earn his living. The more striking consequences, such as traumatic epilepsy and insanity, will be dealt with in my third lecture. It would be difficult or impossible to give a full and classified list of the various remote consequences which may follow injuries to the head and no attempt will be made to do so. These consequences are so numerous and varied and so frequently combined that a full description is out of the question.

I shall avoid any reference to what is known as traumatic neurasthenia, for our knowledge of the causation of the various symptoms following head injuries is as yet vague; it will, therefore, be simpler to deal with the symptoms individually. But it is, of course, of the highest importance whenever possible to determine whether symptoms are due to functional changes in the cerebral centres or whether they are the result of definite organic lesions, and further to remember that functional changes may be maintained and aggravated by organic lesions. This point has a very practical bearing on the question of treatment, for the functional disturbances can usually be cured by appropriate medical treatment, whilst the effects of organic lesions may be curable by operative measures.

*Traumatic cephalalgia.*—Chronic headache is by far the commonest symptom met with in patients suffering from the later effects of head injuries. It may occur alone or in combination with other symptoms and in the latter case may be the cause of, or may exaggerate, some of these other symptoms. It was present in 58 out of the 69 cases which presented any symptoms in the first series and in 43 out of the 52 in the second series. The varieties of headache in the cases are many, a fact which is readily explained by the complexity of head injuries. The pain may be continued or intermittent, localised or diffuse, fixed or radiating, in the latter case usually following the branches of the fifth nerve. Most usually it takes the form of a constant, dull, aching pain, most intense over the seat of injury. Accurate classification is obviously difficult but for practical purposes the following is useful. The pain may be general or local; in the *general* form it is referred to a large area of the head, such as the frontal, occipital, or vertical regions; the whole head seems to ache, but this aching is most intense in one particular region. The *local* forms of headache may be divided into three distinct groups: 1. The neuralgic headache, in which the pain is sharp and intermittent, radiating along the course of definite sensory nerves; this is often associated with neuralgic scars and with scars adherent to the underlying bone. 2. Headache with local tenderness. This is met with in cases in which the bone is in a condition of chronic inflammation or of osteo-sclerosis, a condition to which I shall refer later. 3. Local fixed pain without localised tenderness. In the majority of cases this is due to local intracranial lesions and more especially to meningeal adhesions. The seat of the pain, however, does not always correspond to the seat of the external injury. Pain may be on the side of the head opposite to the seat of injury, in which case the probable lesion is contrecoup bruising of the cortex with formation of adhesions. The condition may persist for years or even be permanent and is a very serious matter as it leads to insomnia, depression, and loss of appetite, and may prevent the patient following his work and attending to the ordinary duties of life. The effect of the headache upon the patient's aspect is extremely characteristic: it gives him an expression easily recognised as typical of chronic headache. Traumatic cephalalgia is frequently kept up and aggravated by alcohol and my patients almost unanimously admitted that alcohol increased any tendency to headache. The exact cause of the headache is not always certain in individual cases, for the causes are many and there is often more than one cause at work. The true neuralgic cases are not common and are almost invariably due to implication of sensory nerves in scar tissues. Such cases are usually cured by free excision of the scar down to the bone. In the neuralgic cases it is said that neuromata of the scalp or neuritis of its nerves are sometimes responsible for the pain but I know of no evidence of this.

From a surgical standpoint, by far the most important condition is that of osteo-sclerosis which occurs comparatively commonly and is peculiarly amenable to operative treatment. The pain originates in the sclerosing bone and is similar to that met with in chronic inflammation of other bones; it is fixed and usually intense, whilst there is always the characteristic local tenderness on firm pressure. The suggestion that such pain arises from the nerves of the dura

mater under the thickened bone is improbable. Sir Victor Horsley was the first to insist upon the origin of this form of headache in a paper read at the Berlin Congress in 1890. He pointed out that in these cases, which are characterised by intense cephalalgia resisting all medical treatment, there are none of the sensory or motor affections met with in traumatic neurasthenia and hysteria; moreover, operation relieves not only the pain but cures the mental condition of the patient also. That sclerosing osteitis of the bone is not infrequent after fracture of the skull has been abundantly proved and this is exemplified in certain of my cases. It is probably due to the increased vascularisation after the injury and reveals itself clinically either by excessive local tenderness of the bone or as a chronic ostealgia becoming more intense under the influence of anything which increases the blood flow to the head. Occasionally atrophy of the bone follows these fractures and the symptoms may be exactly similar in character but are usually less marked. Sometimes under the atrophied osseous bone one finds enlarged Pacchionian bodies which have been accused, wrongfully no doubt, of causing the symptoms.

In other cases various lesions of the bone, meninges, or brain similar to those described in the morbid anatomy of traumatic epilepsy have been found; in some cases no lesion of any kind has been discovered and yet operation has done good. 15 months ago a patient returned to hospital two years after a bullet wound of the left parietal region, complaining of constant intense cephalalgia which prevented her performing any work. She was trephined over the seat of injury and three depressed splinters of bone, one of which had penetrated the dura mater, were removed; the headache disappeared after operation and I have recently heard that she has had no trouble of any kind since. The cerebral substance is apparently destitute of sensibility under normal conditions but it does not follow that it may not be the seat of pain after injury or in disease; indeed, small lesions in the brain not approaching the surface may cause intense pain. The dura mater receives numerous sensory and sympathetic fibres and, if the seat of acute or chronic inflammation, may unquestionably cause pain. The pia mater is said to be innervated by sympathetic fibres only, but other structures receiving only sympathetic fibres may be painful when inflamed.

The subject of *painful or tender scars* is inseparably connected with that of traumatic cephalalgia. Scars, when present, were painful in about 40 per cent. of the cases. Pain in a scar may originate either in the tissues of the scalp or in the underlying bone. In the former case the symptom usually occurs in cases where the scalp wound has been lacerated, or has not healed by first intention, or where the scar is adherent to the bone. On pulling the hair over the scar sharp pain may be complained of and is probably due to a neuralgia affecting entangled nerves; such patients may bear firm pressure on the scar without feeling any pain. The patient may tell one that tenderness of the scar is mostly noticed when he brushes his hair. In others pressure was attended by severe pain and in these cases thickening of the underlying bone is to be suspected. Pressure on the scar may produce other symptoms; thus in one case the patient was unable to lie on that part of the head on which the scar was situated owing to the intense dizziness produced by the pressure. Three patients told me that they had a sensation of "something dragging or pulling at the wound," especially when the head was placed so that the brain fell away from the region of the wound. Quick movements of the head were thus found impossible owing to the intense giddiness produced. It is possible that these symptoms are due to adhesions between the damaged part of the brain and the dura mater, so that at every movement of the head and every change of position this part of the brain is slightly dragged upon. It is obvious from mechanical considerations that the amount of cerebral movement within the cranium is very limited, but it is possible that a very small degree of traction may give rise to the sensations described.

*Vertigo* occurs in a large proportion of cases and may be very persistent. It was complained of in 22 out of the 100 fracture cases and, as already stated, was responsible for six patients having to give up their employment. Vertigo is independent of any aural symptom; it generally occurs with any quick movement of the head and is usually associated with headache. Often it is most noticed when the patient gets out of bed in the morning. It occurs in rising suddenly from a chair or in stooping down to tie a bootlace. It is best tested for in children by standing them upright and telling them to look up to the ceiling, especially if the ceiling is high. It is obvious that these attacks of giddiness may be a source of great danger. Amongst my cases are three instances in which patients were admitted into hospital with concussion, they having fallen in attacks of giddiness consequent upon previous head injuries. One patient complained that giddiness in the street had several times caused him to be mistaken for a drunken man. In a few cases isolated attacks of giddiness occur without any obvious cause. In the middle of his occupation, without any preceding symptoms, the patient may suddenly be attacked with giddiness and faintness. This condition is transitory and after a few hours no trace remains behind beyond the feeling of a little fatigue. I carefully considered the possibility of this symptom being connected with lesions of the central or peripheral connexions of the vestibular nerve, but could find no evidence to support this idea. Vertigo is common after injuries of all kinds and I believe it is usually a manifestation of general cerebral instability.

Attacks of *vomiting* are sometimes found and in my experience are always associated with headache and giddiness, the latter being marked. The immediate cause is probably increased irritability of the vagus centre, the wide extent of the central relations of this centre explaining its occurrence after injuries to various parts of the brain. The vomiting resembles that in other cerebral affections—that is to say, food is rejected soon after it is taken, there are no local gastric symptoms, nor is pain or discomfort produced by the presence of food in the stomach. Nausea is often absent but occasionally may be very distressing. Unilateral furring of the tongue is said to occur occasionally, but I doubt if it is ever observed apart from neuralgia or disease of the fifth nerve. I have frequently looked for it but have never seen it after head injuries.

*A change of disposition or character* was noticed in 35 cases in the first series and in 23 in the second series. In some the tendency was usually towards persistent depression and melancholia, and this was a striking feature of certain of my cases. Such patients were despondent and depressed; they had lost interest in life and took a pessimistic view of everything. This *depression* may be the preliminary stage of a definite melancholia and then suicidal tendencies are especially strong. Three of my cases had attempted to commit suicide and in two in the miscellaneous series suicide was actually committed. The evidence of depression or melancholic tendency is usually plainly marked on the man's face.

In others the change of disposition was in the direction of *irritability;* the temper became short, the patient was easily annoyed, the slightest noise, the simplest question might arouse a furious passion. To quote an expression used by Dr. T. Clifford Allbutt, "Doors bang and windows rattle as they never did before; if but a shoe-string break an imprecation is on the lips; business matters are in a conspiracy to go wrong." The condition is at once recognised by the friends or employers of the patients. He is frequently fully aware of it himself and this is a sign of good prognosis, more especially if he is anxious to overcome the symptoms. It shows itself in the ordinary events of every-day life; there is extreme annoyance for trivial reasons. The patient gets possessed of an idea that people are conspiring together against him and becomes abnormally sensitive. In walking in the street he is apt to misjudge his distances and knock against people. Thinking that they were doing this intentionally he flies into a temper. Drop a tray of tea-things in a man's room if he has recovered from his head injury, he will use only the ordinary expressions; if his recovery is incomplete he will probably fly into a violent attack of intense passion. The patients are, as it were, explosive; there is loss of control. This mental irritability is a common feature after head injuries and may last only for a few months but frequently forms a permanent part of a man's character.

The question naturally arises as to whether this mental irritability leads ultimately to insanity. A surgeon of very many years' experience, to whom I was speaking on this subject, said that "mental irritability is very common after head injuries, whilst traumatic insanity is rare"; and I certainly have found this to be the case, judging from the patients whom I have investigated. The difficulty in giving an opinion on this question lies in the difficulty of keeping such patients under constant observation for a large number of years and when this is possible there undoubtedly occur

cases in which we can gradually trace increasing irritability of temper through a number of years to ultimate onset of traumatic mania, bringing the patient to confinement in an asylum. A typical case of this description is recorded by Mr. C. T. Dent in Tuke's "Encyclopædia of Psychological Medicine." The two conditions, depression and irritability, coexist in the majority of the patients, but one is usually more prominent than the other. In the greater number there is well-marked irritability with some depression; in most irritability is the conspicuous feature of the case.

*Nervousness* is another important symptom in this group. The patients are easily startled, they are frightened by slight noises, and jump violently in their chairs when doors slam. They will often tell you that they have lost their nerve. I have recently seen a police constable who was in hospital two and a half years ago with a fracture of the middle fossa followed by cerebral irritation. He is now quite unfit for work and has been placed on a temporary pension. In addition to the headache, vertigo, and irritability he has lost his nerve completely; he says he no longer has any confidence in himself; he cannot face the street traffic, and is almost afraid to cross the road by himself.

*Inability for mental or physical exertion* occurred for some months in practically all the severe cases of head injury which I investigated; often it lasted for a much longer period and was sometimes permanent. It was found that unusual effort was required to perform the simplest tasks, such as writing a letter. The effects of physical exertion, mental overwork, anxiety, or agitation were easily produced and unusually severe. There was fatigue on the slightest mental effort or strain of attention with a dazed, bewildered, and confused state of mind. The cerebration was sluggish and the intellectual faculties were blunted. As one of my patients expressed it: "The brain did not seem to recognise the work of the eye as before."

Some patients are apathetic. A clerk, aged 37 years, was seen suffering from nervous effects the results of concussion one and a half years previously. He described his state of mind by saying that he experienced a feeling to which he was a stranger before—namely, a dull insensibility, or, perhaps, a stolid indifference to affairs in every phase of life. He was very emphatic in stating that his symptoms were mostly felt when he was indoors and left him when he was out in the open air. This condition is essentially the result of an inadequate period of rest after the injury. The patient returns to his work before he has completely recovered and finds that any attempt at mental work results in severe headache; he is unable to concentrate his attention on any subject for more than a short time, whilst there may be neither the energy nor the ability to do physical work.

*Disturbed sleep* is often associated with headache, depression, and other mental symptoms. Sometimes there is short light sleep which is easily disturbed and broken by troubled dreaming. Sometimes the patients are unusually sleepy but their sleep is heavy and unrefreshing. This insomnia aggravates and is aggravated by the other nervous symptoms. Many of the patients had aged considerably since the accident and premature greyness of the hair was common. One patient, seen six years after a fracture of the base followed by severe cerebral irritation, stated that he thought the accident had added ten years to his life. In this case it was eight months before he could re-start his work as a joiner and he now cannot do very much of this.

*Increased susceptibility to the influence of alcohol* occurred, broadly speaking, in all the cases and forms a very striking feature. It was admitted in 60 per cent. of the fracture cases and 35 per cent. of the concussion cases. I only found but few undoubted instances in which this symptom was definitely absent. Increased susceptibility to alcohol is one of the most constant evidences of lowered resistance of the nervous system. A glass of champagne may produce headache, although formerly three or four glasses had been taken without harm. This effect is a fairly well-known one and many of my cases had not taken alcohol since the accident, in accordance with medical or other advice. The effect, moreover, is readily recognised by the patient. In other cases, where alcohol is not discontinued various secondary effects follow which must carefully be distinguished from the primary effects of the head injury. The alcoholic factor must always be taken carefully into account. Some of the patients I investigated had become confirmed alcoholics and in such the mental condition was rapidly deteriorating. This intolerance of alcohol plays an important part on the etiology of traumatic insanity. A glass of wine or beer may produce an irritable explosion or suffice to turn these patients from apparently sane beings into irresponsible criminals.

Another feature frequently observed was *inability to stand high temperatures*. Exposure to the sun after head injuries may produce headache, giddiness, faintness, and sometimes nausea and vomiting. Direct sunlight is more injurious than mere hot weather and the oppression preceding thunderstorms is keenly felt. Occasionally a definite attack of sunstroke occurs: a boy was admitted into hospital last April with concussion; three months later he was sent to the convalescent home; one morning whilst out of doors with a cap on he suddenly had a severe attack of sunstroke, although it was quite early in the year and the sun was not particularly strong. I was recently called upon to examine a cab-driver who was claiming compensation for the effects of a head injury sustained some two years ago. One complaint was that he had been unable to drive his cab during hot weather or in strong daylight owing to the giddiness and headache which resulted. This inability to bear high temperatures may become permanent and any conditions such as loss of power of concentration or failure of memory are always more marked under the influence of heat. The same result may be produced by artificial heat, as when the patient sits in front of a hot fire or works in a close confined room. In these circumstances intense headache and giddiness are very easily produced.

Unfortunately, at the time when I commenced investigating the after-conditions of patients the presence of wet weather and fog caused me to overlook the influence of sunshine and I cannot give full figures upon this point. The symptom was, however, present in more than half of the patients in whom I inquired for it. Occasionally I met with cases whose symptoms were not influenced by heat but were always aggravated by cold and wet weather.

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ABSTRACT OF

# An Address

ON

# THE PSYCHIC SIDE OF THERAPEUTICS.

*Being the Annual Oration of the Hunterian Society, delivered at the London Institution on Feb. 10th, 1904.*

BY J. F. WOODS, M.D. DURH.,

SUPERINTENDENT OF HOXTON HOUSE ASYLUM.

[AFTER a few prefatory remarks Dr. Woods continued as follows:—]

Year by year our knowledge of physiology and morbid anatomy increases and year by year we realise the more how great was the stimulus which the genius of Hunter gave to these sciences and how many of the practical developments of medicine and surgery had their origin in the great founder whose name and work we commemorate to-day. On this occasion I propose to dwell somewhat on the subject of Hunter's physical infirmities and to refer to certain of his views concerning the physiology of the nervous system and the manner in which body and mind act and react upon one another.

It is not a little remarkable that but few of our great geniuses have been men of robust physique, though many of them have shown great tenacity of life. John Hunter formed no exception to this rule. He was a diminutive man, some 5 feet 2 inches in height, of slender build and sensitive organisation, by its very nature prone to physical suffering, but his forceful mind ruled the small and ailing body, compelling its obedience where many a man of less dominant personality would have been ruled by it and would have drifted into confirmed invalidism. For the first 40 years of his life Hunter appears to have enjoyed fairly good health, at least there is no evidence of his having suffered any serious illness up to this time. In the spring of 1769 he had an attack of gout and in 1773 some trouble, probably of a domestic kind, affected him deeply and seems to have had

no small share in starting the many nervous symptoms to which he became a martyr in later life. Let me particularly direct your attention to the influence of this mental factor. He does not appear to have attributed these early nervous symptoms either to the heart or nervous system but rather to the stomach. It soon became evident, however, that his illness lay far deeper than this organ, though he, to the very end, referred to the stomach in his teaching as the "universal sympathiser." In 1776 an illness, evidently of a nervous character, began. The first attack occurred while he was out driving, with a feeling of intoxication; that evening, as was his wont he treated his stomach and went to bed, but no sooner had he lain down than he felt as if he were suspended in the air and as if the room were spinning round. The following day he was better but on the next the symptoms reappeared; when he got to bed the sensation of being suspended became more and more pronounced, he lost all sense of size and distance, and the least motion of his head appeared so great that he scarce dared move it at all. His hearing became painfully acute, as did also his sense of taste and smell, and he could bear no light, either natural or artificial, but lay in the dark with a blanket hung against the window. In this state he remained for ten days and then suddenly recovered.

John Hunter's infirmities are generally referred either to his gout or to angina pectoris but I think you will agree with me that these affections will not satisfactorily account for the symptoms which I have just described. We have here evidence of a curious functional disturbance to which we can give no more definite name than "neurosis." These attacks recurred several times during the next few years and he gradually came to realise the influence which his mental condition exerted on his health, not only on these attacks but on his gout and certain very alarming seizures which date from the beginning of 1785, though there had been a premonition of them some years before. These seizures began with a strange sensation as of the sternum being drawn backwards to the spine and an oppression in breathing, though the breathing itself was not interfered with. These spasms were at times most violent and were accompanied by excruciating pain and exhaustion and on one occasion at least by unconsciousness which lasted several minutes. Perhaps nothing shows the influence of mind upon body better than the power of a strong emotion to excite an attack of angina pectoris. This was illustrated in the case of Hunter. "It is a curious fact that the first attack of his complaint was produced by an affection of the mind, and every future return of any consequence arose from the same cause; and although bodily exercise or distension of the stomach brought on slighter affections it still required the mind to be affected to render them severe, and as his mind was irritated by trifles these produced the most violent effects upon the disease."[1] We are told that any agitation of mind would bring on an attack, such as the anxiety about the hiving of a swarm of bees or (as he mentions in one of his own lectures) the listening to a story which greatly interested him. One especially violent spasm which was attended by eructation from the stomach lasting nearly a quarter of an hour appeared to have been brought on by the dread of hydrophobia. He confessed to Dr. Pitcairn that he had been greatly disturbed in mind in consequence of having cut his hand while opening the body of a person who died from the bite of a mad dog about six weeks before and that for the last fortnight he had been living in constant dread of hydrophobia. In the second edition of his "Animal Economy" he wrote, "When death takes place from violent affections of the mind it must be referred to the universal influence which the mind has over the body," plainly showing that he believed it possible that the mind could so affect the vital organs as actually to cause death, a truth that was so tragically illustrated in his own person. One day, in his sixty-fifth year, not feeling particularly well, he told a friend that if anything occurred to excite him at the hospital that day it would mean his death he felt sure. What he dreaded did unhappily occur, for an angry discussion with a colleague brought on one of the old heart attacks. He ceased speaking and retired into an adjoining room only to fall lifeless into the arms of Dr. Robertson, one of the hospital physicians, whence after an hour spent in vain attempts to restore animation his body was conveyed to his late residence in a sedan chair. He was interred on Oct. 22nd, 1793, in the vaults of St. Martin-in-the Fields; thence, on March 28th, 1859, through the instrumentality of Mr. Frank Buillard, his remains were removed to Abbot Islip's Chapel in Westminster Abbey.

[1] From Dr. Joseph's Ridge's oration on the thirty-sixth anniversary.

Here I may briefly refer to Hunter's recognition of the intimate sympathy that exists between all the parts of the body. There was, he said, "a universal sympathy" between them and he correctly referred it to the nervous system. He considered that the stomach and the head were of all parts the most closely in sympathy and spoke, indeed, of the former organ as "the centre of sympathies."

From my own point of view, perhaps the most interesting passages to be found in Hunter's writings are those which show that he was not unfamiliar with the principles which underlie treatment by suggestion. Take, for instance, the following passage: "An effect of the mind on the body is capable of producing an impression on the senses of a second body, which shall make the mind of that second body fall into the same state with the first or original mind." And in another passage he shows how one individual may be influenced through his senses by others—how, e.g., when we see a person dance we tend to "sympathise with the cause of those actions" and to put ourselves "in the same state in which the mind, or cause, is in which produces them."

Great progress has been made in physiology and no inconsiderable progress in psycho-therapeutics since Hunter's time, but I doubt much whether the medical profession even yet fully realises to what extent the influence of the mind over the body can be turned to therapeutic account. There is among the laity a growing school of thought which regards disease essentially from the psychic side and which declares that mind has such power over matter that some day it may be possible to cure all diseases by its means. This exaggerated view is a reaction against the too material methods of treating disease which prevail among many members of our profession. The young practitioner on leaving the hospital believes that material diseases are to be cured by material means and by such means only, neglecting altogether the psychic personality which is continually making its subtle influence felt through every cell and fibre of the material body. When he gets into practice he hears of remarkable cures being effected by laymen among patients whom medical men have failed to benefit. Many of these accounts are perfectly true and when such cures are investigated it is found that mental influence has in the majority of them been the effective agent. Is it wise, I would ask, that we should neglect such a valuable means of combating disease and allow the exercise of it to be the exclusive prerogative of the untrained layman?

I now come to the methods of employing psycho-therapeusis. Different operators have different methods of inducing hypnosis and I need not detain you with the details of these methods—how one man directs his patient to look into his own eyes until the hypnotic state is induced, how another orders him to gaze at a bright object such as a diamond, how others again employ mechanical devices of various kinds but all having the same primary object, to engage the attention and to fatigue the visual apparatus. In ancient times the inhalation of certain drugs, notably cannabis indica, was used to aid the induction of hypnotic sleep and more recently chloroform has been employed with the same object in cases which do not yield to ordinary methods, but of these methods I have had no experience.

Of late years most physicians who have employed hypnosis therapeutically have shown a tendency to abandon elaborate methods, finding that for practical purposes they are unnecessary and, indeed, that it is not even always needful to induce complete hypnosis in order to render suggestion effective.

Respecting the method which I myself use, I have little to add to the description given in the *Journal of Mental Science* in 1897. It remains much the same to-day as it was then, but I ought perhaps to say that I am more than ever convinced of the correctness of John Hunter's observations with regard to "the direct sympathy that exists between the stomach and the most remote organs of the body and the way in which it may reciprocally affect, and be affected by, the head," and, acting on this conviction, it is a common practice with me to place my hand on the patient's epigastrium while gently stroking with the other the patient's head. In this way I am often able to obtain striking results, more especially in palpitation and in epigastric pain, oppression, or spasm. While applying the hands as just described I engage the patient in conversation with the object

of securing his full confidence, which, having done, I get him to relax his muscles to the utmost, and I insist on complete silence, the only sound heard being that of the rhythmic movement of my hand as I stroke the upper part of the face or, as sometimes happens, the arms. This silence I have found in many cases more impressive than words and a suggestion made at the end of a pause of this sort is, in my experience, far more effective than the uninterrupted drone of a voice making the same suggestion in different phrases, as is the custom of Bernheim who, like myself, resorts to treatment by suggestion without hypnosis. All this time I remain myself as reposeful as possible. I seek in fact to create an atmosphere of repose and silence which is in itself impressive and tends to induce a feeling of well-being and expectancy in the patient. If, when the psychological moment has arrived, I make a suggestion I get an effect such as I cannot so readily obtain in any other way, save by inducing actual hypnosis, which many patients object to and for which there is in the majority of cases no necessity whatever. In most cases there is no need whatever to send the patient to sleep. Suggestions can in almost all cases be made quite as effectually without hypnosis as with it and certainly in the case of many patients whom it would be impossible to hypnotise. A further advantage of this plan is that treatment can often be carried out in séances of quite short duration and in the consulting room, though in difficult cases it may be advisable to visit the patient at his own house in the evening at the hour of natural sleep and in still more obstinate cases it may be necessary to remove the patient from injurious home influences.

With regard to the suggestion, which is the essential curative agent, there must be no kind of uncertainty about the manner of making it; it must be forcible, deliberate, unmistakeable. John Hunter says: "A fixed principle fixes the mind but a doubtful one leaves it no rest." He goes on to say: "Anxiety is expressive of the union of two passions—desire and fear." In the patient's mind the desire is to get well; the fear is that many kinds of treatment having already failed this one will fail also. The suggestion must therefore be made in such a way as to give the patient confidence both in the physician himself and in his methods. The patient's desire to be restored to health must be accentuated and any doubt that this will not be accomplished dispelled. But before the physician can speak with this necessary authority he must have gauged the exact condition of his patient and himself be inspired with confidence in his powers so that he may infect his patient with it. It is this very confidence, or arrogant pretence of it, which enables the blatant charlatan often to succeed where the legitimate but more modest and hesitating practitioner may fail, for though the latter may begin by feeling pretty sure of success doubts are almost certain to crowd up in his mind—the strange vagaries of disease, the unexpected turns it may take, the infinite variety of constitution and temperament that are encountered, the manifold outside influences that may operate injuriously but especially in the case of the neurotic—all these considerations rise up to disconcert him and to rob him of that very confidence which is so necessary to success in inducing hypnosis or in making an effective suggestion. I find, surprising as it may seem, that more confidence and experience are required to implant an effective suggestion independently of hypnosis than are required to induce the hypnosis itself and I am therefore in the habit of advising beginners always to seek to produce complete hypnosis before offering the therapeutic suggestion, later to practise Bernheim's method of constantly repeating the suggestion without first inducing hypnosis, gradually feeling their way towards the more simple method which I have described.

[Dr. Woods here referred to the facilities which asylum practice offers for cultivating the art of psycho-therapeusis and continued as follows:]

Just as the general physician should make all the use he can of suggestion, so contrariwise the physician who devotes himself especially to this line of treatment should be prepared to make full use of other therapeutic methods besides suggestion, should they be called for. Thus if a patient suffers from chlorosis I of course give iron; if there is neuralgia from gummatous formation I prescribe large doses of iodide; if there is chronic gastro-enteritis I recommend a careful dietary; or if the patient is profoundly emaciated I may find it necessary to resort to the Weir-Mitchell treatment. But in all these methods of treatment I find I get great help from suggestion. In a case undergoing Weir-Mitchell treatment much can be done by suggestion to calm a restive patient, to improve sleep and digestion, and to remove such disagreeable symptoms as neuralgia and headache. In these cases I sometimes find it necessary to see the patient daily, but for the majority two or three visits a week suffice; later, a single weekly visit may be sufficient. Here let me emphasise the importance of securing the services of the right kind of nurse in carrying out the rest cure. She must be tactful, resourceful, gentle, firm, quiet, and patient, a combination of qualities possessed, I need scarcely say, by but few.

The disorders in which the best results are obtained by suggestion are, of course, those depending upon functional disturbances of the nervous system, such as tremor, chorea, neuralgia, headache, sleeplessness, palpitation, epilepsy, mental diseases, chronic alcoholism, and the various drug habits. But, as I have already said, suggestion may prove of service in the treatment of most maladies and I have by its means been able to alleviate serious organic diseases, such as valvular disease of the heart, Graves's disease, and locomotor ataxy. It is, of course, needful to tell the patient in all such cases that absolute cure cannot be effected.

[Dr. Woods here showed elaborate tables containing statistical results. The names of the several diseases treated and the number of patients suffering from each of them were as follows:—Neurasthenia, 245; writer's cramp, 10; chronic alcoholism, 115; stammering, 6; headache, 153; melancholia, 79; dyspepsia, 62; arthritis, 43; neuritis, 20; insomnia, 44; neuralgia, 95; lumbago, 6; torticollis (spasmodica), 13; sea-sickness, 3; sickness of pregnancy, &c., 4; impotence, 8; sciatica, 39; asthma, 4; masturbation, 9; nocturnal incontinence, 5; gout, 10; urticaria, 3; blushing, 2; pain, 5; night terrors, 2; stage fright, 10; biting nails, 1; epilepsy, 26; functional paralysis, 9; hysteria, 7; menorrhagia, 4; morphia habit, 7; tinnitus, 4; sprain, 1; spinal neuralgia, 5; chorea, 35; obsession, 2; locomotor ataxy, 3; spasm, 2; delusions, 2; bad temper, 2; pianist's cramp, 1; rheumatism, 2; tremors, 3; delirium tremens, 1; deafness, 8; and palpitation and heart troubles, 11. The grand total of patients treated was 1129, of whom 868 were tabulated as "apparently recovered," 125 as "improved," and 136 as "no apparent change." Dr. Woods also gave detailed clinical descriptions of 14 cases, from among which the six following are selected as illustrative. Lantern pictures were shown exhibiting the handwriting (before and after treatment) of several patients suffering from writer's cramp and chorea. In all cases the writing was better after the treatment.]

CASE 1.—The patient was an unmarried female, 24 years of age. She had suffered from facial neuralgia for four years. No medicine relieved her for more than a few days. She could not sleep and was weak and depressed. She was hypnotised for the first time on Oct. 7th, 1892, and suggestions were given that she was to sleep for 15 minutes, to awake with no pain, to be bright and cheerful, and to sleep well at night. Everything happened as suggested. The patient awoke laughing without any pains and slept well at night, the neuralgia not returning until 12 days afterwards, when she was again hypnotised, since when (with the exception of a few hours' pain due to a carious tooth during November, 1895) there has been no recurrence of pain.

CASE 2.—The patient was a married woman, 36 years of age. She consulted me in the summer of 1897 for sciatica in the right leg. She had been laid up on and off for about eight months and the pain was at times very acute. Such was the case when I saw her; she limped and was obliged to support herself with sticks. She had been treated without relief during the whole of her illness by rest, diet, drugs, liniments, blisters, baths, poultices, and fomentations. I treated her by suggestion only, placing my hand very gently on the back of her hip, outside her dress, when she immediately expressed herself as free from pain. It disappeared instantly. This was the quickest result I have had and surprised no one more than myself. I told her to lie on the couch for half an hour afterwards and then to get up. There was no return of the pain at the end of this time. On leaving me she laughed and said, "I daresay you think I am a fraud, but I assure you I suffered tortures." She came again three days afterwards, expressed herself as feeling well, and had had no appreciable pain, but the leg was a little weak. In 1902 I saw her again for other troubles but she had kept entirely free from sciatica.

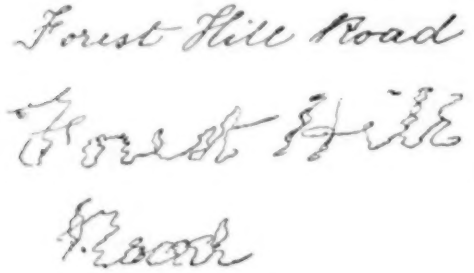
CASE 3.—The patient was a man, 34 years of age. He

had had sciatica of the left leg for 12 months and had been treated at home and abroad during the whole period of his illness. He came to me in 1896 saying that he could not sleep or walk 100 yards without acute pain. I treated him by suggestion and pressed my fingers outside his clothes on the painful spots and gently stroked his leg from above downwards. In about ten minutes all pain vanished and he performed various gymnastic feats in order to see if the pain would return but it did not. At the same time he told me that he did not believe in me or my treatment but he meant to give everyone a trial until he got relief. He walked up and down my room for about an hour, doing all sorts of movements, and then went for a brisk two-mile walk, and in two days I had a letter from him saying that he felt a little tired after walking but the pain had not returned. He visited me two or three times after this to show how well he had remained since the treatment.

CASE 4.—The patient was an unmarried female, 37 years of age. She was sent to me by Dr. D. Ferrier from the National Hospital for the Paralysed and Epileptic, suffering from functional paralysis of the left leg. She had been under treatment for two years, her leg was wasted and cold, and she walked on crutches, dragging the foot and unable to put her weight on it. I treated her by suggestion only three times in one week and she was able to walk after the third treatment. For the first treatment I suggested that her leg should feel warm and comfortable. It actually became warm in a quarter of an hour. For the second treatment I suggested that she should be able to move it, which she did slightly in ten minutes. For the third treatment I suggested that she should be able to stand on it and walk, which she did in half an hour, but only with great difficulty on account of the weakness. After this she steadily improved; in about a month the leg was of the same size as the other and she walked then as if she had never been ill.

CASE 5.—The patient was a married woman, 60 years of age. She consulted me on Nov. 9th, 1901, complaining of constant pain in her right leg, extending from the knee to the ankle on the outer side. The pain had lasted for six months and nothing gave her relief. No cause for the pain could be ascertained. She had recently undergone a rest cure (Weir-Mitchell) and had had treatment for gouty dyspepsia and neurasthenia and expressed herself as feeling well except for the pain in her leg. I treated her by suggestion only, saying that the pain would go, placing my hands where the leg was painful. In about ten minutes she told me that every vestige of pain had disappeared and she walked with comfort about the room. I saw her last summer and she told me that she had had no pain in her leg since I treated her. One treatment was sufficient.

CASE 6.—This case is well known to you. The patient was at King's College Hospital under the care of Dr. Ferrier and was sent to me by Sir Hugh Beevor at the end of January, 1896. I show examples of her writing; she had



Specimens of handwriting of patient (Case 6).

a peculiar tremor of the right hand. She was treated by short hypnotic sleeps and I believe has kept well.

OBJECTIONS.

Some members of our profession have still a rooted aversion to treatment by hypnosis and from their writings one would almost suppose that they would rather not cure at all than resort to it. For this they assign various reasons, the most important being that the operator can if he so chooses acquire an undue and injurious influence over his patient. This grave indictment has been so effectually disposed of by Dr. J. Milne Bramwell in his excellent work[2] that it is unnecessary for me to say anything further on it. Even granting, however, that the medical man could obtain through hypnotic means an unhealthy influence over his patients the fact could not legitimately be used as an argument against the therapeutic use of hypnosis. Should he so wish to influence his patients there is surely no need to resort to hypnotism for the purpose; but why should he desire it any more than he should desire to injure them by the employment of other well-tried therapeutic means? Assuming that he can make a poisonous use of hypnosis, can he not also make a similar use of drugs? and no man worthy the name of physician is likely to do the one any more than the other.

But while this absurd charge carries its refutation upon the very face of it the case is far otherwise in regard to the employment of hypnotic treatment by the unskilled layman. The danger here is not so much that the operator shall acquire an undesirable influence as that he shall, through a random and indiscriminate use of a subtle and potent agent, inflict serious injury. The public is constantly suffering at the hands of the so-called healer. This over-credulous and gullible public is willing—nay, anxious—to regard the power to hypnotise as some mysterious spiritual gift rather than as an attribute possessed by all and explicable on known natural laws. They cannot look upon hypnotic treatment as they do upon treatment by drugs or electricity, or Roentgen rays, or other recognised therapeutic agent to be prescribed by a physician only.

The so-called faith-healer knows nothing of the nature of the disease which he presumes to treat or of the difficulties which lie in his path. Blind men have by faith been made to see, deaf men to hear, lame men to walk, then why should not (so he argues) a cure of the case before him be similarly effected? The fact that there may be an insurmountable barrier in the way of cure, that the case may be essentially one for surgery or for antisyphilitic treatment, enters not into his mind. If it should chance to be one which lends itself readily to his methods he will succeed for a time at any rate; and if not he recks nothing of the precious time and opportunity he may be wasting while the patient is being deluded with the false hope of recovery.

There are, however, signs that the opposition which treatment by suggestion has met with is growing daily less and less and that this potent therapeutic method bids fair soon to be taught in our schools as a matter of routine. For myself I am gratified and proud to say that I have received much help and encouragement from my professional brethren in pursuing this line of treatment and my relations with them have ever been most cordial and pleasant.

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ABSTRACT OF

# An Inaugural Address

ON

## THE DIMINISHING BIRTH-RATE AND WHAT IS INVOLVED BY IT.

*Delivered before the British Gynæcological Society on Feb 11th, 1904.*

BY JOHN W. TAYLOR, M.Sc. BIRM., M.D. BRUX., F.R.C.S. ENG.,

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THE address was divided into four parts. The first was devoted to a critical study of the statistics of the subject during the last 25 years. The birth rate of the United Kingdom was compared with that of other countries, both east and west, and it was shown that during the last 20 years no other nation has sustained so great a loss as we have in this definite period of time. The marriage-rate in the United Kingdom during the same period was found to be slowly rising so that the "birth loss" was necessarily due to causes operating in the married life of our population and not simply due to celibacy. The value of the population of

[2] Hypnotism: Its History, Practice, and Theory, 1903.

to-day was then compared with that of 20 years ago and it was found that in juvenile criminality, in mental disease and brain weakness, and in alcoholism the restricted population of the present day compared unfavourably with the freer population of a former generation. A tentative effort was then made over a limited field to compare the general culture of the more intellectual classes of the two generations and this (so far as it went) was found to work out disadvantageously to the present generation. The work of Professor Karl Pearson on heredity was then considered and was found to point to a similar conclusion. "All of this tended to show that the marriages of to-day were not only relatively sterile but either (1) that the children born of such marriages were weak, neurotic, specially liable to alcoholism, criminality, and insanity, and so far unfit for the battle of life; or (2) that marriages of the middle and better classes were now so sterile that quite an undue and dangerous porportion of the rising generation was recruited from the lower, the more ignorant, the more vicious and semi criminal population."

The second part of the address dealt with the cause and life-history of these "relatively sterile" marriages. The cause was traced to the deliberate prevention of conception and reasons were brought forward supporting the view that this was not only destructive of the future life of the nation but seriously injurious to those who practised it and to such children as were "arranged" for and produced. The prevalent neurasthenia of the present age was increased by the practice and the absence of sexual restraint encouraged by it had an evil effect on the moral character which was liable to be transmitted to the children. In addition to this, the child of the relatively sterile marriage suffered from a debased and stunted education. "Reared in greater comfort or comparative luxury, with no brothers or sisters of similar age to rub off its angles and selfishness, it was ill-prepared for every step of the succeeding battle of life and it was very frequently the child of the larger family and poorer parents who pushed his way in front of him and elbowed him to the wall."

The prognosis of "prevention" was the theme of the third part of the address. Attention was drawn to the present condition and statistics of France where, for 50 years, the birth-rate had been falling until the population had become stationary or even less than stationary. "During the last 50 years criminality had trebled in France, that of children and young people being specially remarkable, and particularly so regarding crimes of lust and prostitution. During the last 20 years the consumption of alcoholic drinks had trebled and France had passed from the seventh place in order of consumption of alcohol to the first. Insanity was steadily increasing and the ratio of suicides had risen from 112 per million in 1880 to 205 (or nearly double) in 1885." It was pointed out that after half a century of trial with an increasingly limited population France showed more and more a lowered and still falling moral average, a lessening virtue or strength, and an increasing national neurasthenia which seemed to crave and to need the help of constant stimulation in order to face the ordinary routine of life. The future danger of this under a democratic form of government was considered and insisted on. So long as the race progressed the people could be trusted with the powers of government, but when decadence had been going on for years, and even ages, what could be the final outcome of such democracy but anarchy and confusion?

The fourth part of the address dealt with the treatment of this national evil, apportioning to the Church, the State, and the profession of medicine their proper share in the re-creation of a healthier moral standard and practice. "The birth loss in the United Kingdom must be due to causes operating in the married life of its inhabitants." Therefore there was no reason to fear any high ideal of chastity or continence and especially when this was associated with the care of those forces which go for the defence of the nation and that child life which was its future hope. On the other hand, there was every reason to fear that debased ideal of married life which was secretly and insidiously working for the ruin of the nation's power and for the destruction of its hope. National decay or degeneration was by no means the inevitable consequence of age, as some had supposed. The history of Japan was one evidence of this and it was worthy of notice that the present power of Japan was directly associated in the mind of the Japanese with the knowledge of their own racial strength and increase; indeed, it was evidently that which gave them youth.

Insisting on the necessity of arousing the public conscience and of aiming at a truer and braver conception of life, Mr. Taylor concluded by saying that he must confess when he heard of thoughtful men among the Boers in South Africa, military authorities in St. Petersburg, and Japanese in far Japan noticing and counting on their own racial increase and comparing this (kindly or unkindly) with our own comparative stagnation, he would like if he could to sting his fellow countrymen into some proportionate sense of shame and duty. He thought that in his responsible position as the temporary head of a great British society which was an authority on such questions he was surely not overstepping his province if he asked, not so much for any following of his leadership, as for the fullest independent investigation into all the facts, figures, and arguments which he had brought forward.

# THE USE OF ANTISTREPTOCOCCIC SERUM IN THE TREATMENT OF SCARLET FEVER AND OF DIPHTHERIA.

BY F. PERCIVAL MACKIE, F.R.C.S. ENG.,
LIEUTENANT, I.M.S.; LATE RESIDENT MEDICAL OFFICER AT THE BRISTOL CITY ISOLATION HOSPITAL.

DURING the 18 months in which I had charge of the Bristol City Isolation Hospital (June, 1900, to January, 1902) nearly 950 cases of scarlet fever passed through my hands and the mortality of all these worked out at just over 2·25 per cent. These figures when compared with those, say, of the Metropolitan Asylums Board, where the mortality is rarely under 4 per cent., look satisfactory. It would, however, I think be erroneous to draw any deductions from this comparison as the total number of Bristol cases is small, and moreover epidemics of scarlet fever vary so much in their severity that very large numbers of cases must be examined before one can draw accurate deductions. My object in this paper is not, however, to institute comparisons between sets of statistics but to examine individual cases as carefully as possible and to note what effect the use of antistreptococcic serum produces on severe cases of scarlet fever. I have notes on 22 cases so treated and five cases of diphtheria which have been treated both with antistreptococcic serum and diphtheria antitoxin. This latter series of five cases I shall refer to separately as they present unusual features and are of particular interest.

With the exception of a few cases which were admitted in such a condition as to render any treatment useless, all the severest cases were treated with serum; so, though the cases were selected, it was only the very worst of the patients (with the above exceptions) who were submitted to it. The serum at first used was that obtained from the Lister Institute of Preventive Medicine; latterly that prepared by Messrs. Burroughs, Wellcome, and Co. was also used, and I then gave the different strains alternately. If I were treating a number of patients with anticoccic sera again I should procure samples from as many sources as possible and give them alternately, on the principle that one would be more likely to hit off the particular variety of coccus causing the disease under treatment.

In reading records of cases of various diseases—e.g., puerperal fever, ulcerative endocarditis, pyæmia, erysipelas, &c., which have been treated with antistreptococcic serum—one cannot help being struck with the inconsistence in the results. One man writes enthusiastically to record a brilliant result and another in apparently similar cases reports repeated failure. This inconsistence is fully borne out by my own experience and in watching other cases in hospital, and one can never say beforehand, even with a full bacteriological report before one, which case is likely to be benefited by serum treatment and which will not. The treatment, though rational in theory, is empirical in its results. The reason of this is that bacteriology has not yet decided the relationship between the numerous forms of cocci met with in quite dissimilar diseases. Are they all the same organism under different degrees of attenuation or virulence, modified by the reaction of the tissues in which they find themselves and by the function or anatomical position of the organ in which they

are flourishing? Or, on the other hand, have such dissimilar diseases as osteo-myelitis and meningitis, general peritonitis and stitch abscess, ulcerative endocarditis and boils, each their own peculiar micrococcus? If the first condition holds then the serum from any of these cocci should produce at least some effect on all these different diseases, whilst if the latter supposition is correct then one would expect a disease to react only to the serum prepared from that particular strain of organism. Until, therefore, the identity or otherwise of the numerous cocci known to bacteriologists is settled, treatment with antistreptococcic serum must remain in the regions of empirical therapeutics.

I have inquired into the possibility of manufacturing a polycoccic serum—i.e., one made from a number of cocci from various sources—and I understand that some laboratories have considered (or have actually carried out) the preparation of such a serum.

I now proceed to deal with the various phenomena more in detail.

*Type of disease.*—In 16 out of the 22 cases the type was that known as anginal or anginose with evidence in every case of a greater or lesser degree of sapræmia. In four cases there were signs of either septicæmia or pyæmia and in the latter cases abscesses were found either ante or post mortem either in joints or one or other of the viscera. The local condition of the throat in these anginose cases was as follows. The milder cases showed much exudation of mucopus and the pharyngeal walls were stiff and brawny and excessively painful; well-marked cervical buboes were present. The severest cases (and these formed by far the larger number) presented actual ulceration and sloughing of the soft palate and tonsils, the throat was choked with pus, often stinking, and hæmorrhage was not infrequent. Ulcerative stomatitis was often seen involving large areas of the inner aspect of the cheeks and purulent rhinitis which excoriated the nostrils and double otitis media were very frequent complications. Large cervical buboes which went on to suppuration also occurred. The two great dangers from this condition were first that arising from the continuous absorption of septic material and sapræmia and secondly that of insufficient feeding. The first was combated with two-hourly lavage of the throat with chlorine solution and the latter was met only by increasing vigilance and unremitting attention and patience on the part of the nursing staff (particularly on the part of the sister in charge of the infant ward).

*Bacteriology.*—In six cases where the blood was examined during life it was found sterile in three cases; in two pure staphylococcus pyogenes albus was found and in one mixed staphylococci and streptococci. In four cases where the blood was examined after death one was sterile, one contained pure streptococci, and two showed mixed cocci. In seven cases where cultures were made from the throat six grew mixed cocci and one showed chiefly streptococci. In several cases cultures were made from the pus of secondary abscesses or from internal organs where generalised infection was suspected. In every case that died a complete post-mortem examination was made. In two cases my finger was pricked when sewing up the corpse and in both instances severe lymphangitis and small local abscess resulted. From the first abscess pure staphylococcus pyogenes albus was cultivated and in the second abscess a short streptococcus was found, in each case the same organism previously cultivated from the patient's blood during life. Two cases had tracheotomy performed for œdema of the glottis; both died.

*Serum injections.*—One bottle (approximately ten cubic centimetres) was the invariable dose. Six patients had one dose only, five patients had two doses only, six patients had three doses only, two patients had four doses only, one had five doses, one had six and one had seven doses. One patient had, in addition, 1000 units of antidiphtheritic serum and another had 5000 units of the same on the suspicion of their having diphtheria which was not subsequently confirmed by bacteriological examination. The serum was introduced by means of an antitoxin syringe with asbestos plug, the whole instrument being taken to pieces after each injection and boiled. The injection was made into the flank or abdomen under antiseptic precautions. Beyond causing slight irritation at the time the injection caused no discomfort in most cases. There was a blush seen round the site of injection in three cases next day with slight tenderness which both disappeared in a few hours. One child developed a local chronic abscess at the site of injection; at the end of a week it was opened up and a teaspoonful of ropy pus like starch emulsion was evacuated. Cultures made from this pus grew a weakly coccus only after four days' incubation; this coccus quickly died out. This patient subsequently developed a large abscess around the shoulder-joint and later one in the abdominal wall and only recovered after a tedious illness. I have dwelt on this case because it is the only one where I suspected the serum of having done harm. Even in this case it is impossible to say whether the condition of pyæmia which arose subsequently and the staphylococcus pyogenes albus found in the blood stream were due to the inoculation of septic serum or whether these complications arose in the natural course of the disease.

*Effect of the serum on the temperature, &c.*—In the majority of cases no marked effect on the temperature was noted, though the general tendency was for the thermometer to rise from 0·5° to 1° F. Sometimes the injections were followed by a marked rise of 3° or 4° and I think in these cases the serum seemed to be beneficial.

*Rashes.*—The occurrence of well-marked maculo-urticarial rashes was not uncommon. The first evidence was the presence of salmon-coloured angular maculæ on the face and neck; these deepened in colour and became markedly urticarial and irritating. The colour disappeared on pressure, leaving a yellow stain, and the rash lasted about two or three days, gradually fading. Other rashes were noted which probably depended on the absorption of septic material. Some were of the nature of dark hæmorrhages over the body and especially over points of pressure—e.g., heels and buttocks, and others were present as multiform punctate hæmorrhages and purpuric blotches.

Albuminuria was common but actual nephritis was rare; only about three cases of frank nephritis occurred in 900 cases, though in several instances the kidneys were found post mortem to present evidence of early disease. It may seem anomalous to state that hæmaturia was commoner than albuminuria, but over and over again I was attracted to a very smoky urine expecting to find a large quantity of albumin and only to find a barely detectable trace.

### *Five Cases of Diphtheria treated with Diphtheria Antitoxin and Antistreptococcic Serum.*

CASE 1.—The patient was a child, eight years old, who had been taken ill with malignant diphtheria six days before admission to hospital and was in a hopeless state when admitted, the throat being filled with putrid sloughs and blood and emitting an indescribable stench. The neck was swollen up to the level of the chin. Klebs-Löffler bacilli and mixed cocci were present. The child's temperature was 97° F. Ten cubic centimetres of antistreptococcic serum and 4000 units of diphtheria antitoxin were given in one dose. The child died on the day after admission. The necropsy showed partial destruction of the soft palate and tonsils, as well as the presence of suppurative adenitis, hæmorrhages into the tissues, necrotic areas in the small intestine, and septic bronchitis.

CASE 2.—The patient was a child, 12 years old, who showed a good deal of membrane in the throat and had a temperature of 103·6° F. The general symptoms were very severe. On admission to hospital the patient was covered with an extraordinary rash of the following characters. It was composed primarily of circles of erythema, each circle varying in size from that of a sixpence to that of a shilling and being of a dull scarlet colour. Some of these circles were discrete but others had coalesced into a large patch or patches of about the size of a saucer with crenate edges due to the circular shape of the composing elements. In most of the circles there was an eccentric ulcer or scab and sometimes there was a small pustule. The hands looked as if their palms and backs had been dipped in red ink. These scarlet areas were not painful; they disappeared on firm pressure, returning instantaneously. On the left side of the neck from the clavicle to the ear there was a dusky red area not painful or swollen but disappearing on pressure. The left ear was deeply congested and purple. The throat yielded diphtheria bacilli on culture and staphylococci and streptococci as well. The blood withdrawn from the cephalic vein grew a few isolated colonies of streptococci and white staphylococci. The leucocytosis was 13,700 per cubic millimetre. Widal's reaction was negative. There were marked nervous phenomena, semi-coma or busy delirium, subsultus tendinum, and marked tremor of the hands. On the day of admission 3000 units of diphtheria antitoxin, obtained from Messrs. Burroughs, Wellcome, and Co., were given. On the second day 3000 units of diphtheria

antitoxin plus 10 cubic centimetres of antistreptococcic serum were given. On the third day only 10 cubic centimetres of antistreptococcic serum were given. On the fourth day 1500 units of diphtheria antitoxin plus 10 cubic centimetres of antistreptococcic serum were given. On the fifth day the temperature was between 101° and 102°; on the sixth day it fell to normal and did not rise again.

This was one of the severest cases treated with serum and no hope was given of the patient's recovery. He apparently had pyæmia as well as diphtheria. Death seemed inevitable on the fourth day and on the sixth he was practically convalescent. Diphtheria bacilli were found in his throat at intervals for several weeks. The curious rash mentioned lasted till the sixth day and then faded. He subsequently developed paralysis of the soft palate (complete), of the irides (complete), of the diaphragm and lower intercostals (apparently complete), and of both arms (partial). He also had marked cardiac irregularity. He was ultimately discharged well having recovered from all his paralyses (strychnine was freely given). In reference to the peculiar rash I have seen a similar condition in the case of a man who suffered from pyæmia and was under the care of Dr. A. J. Harrison of the Bristol General Hospital whilst I was his house physician. This man was subsequently treated with antistreptococcic serum but died. I believe these small ulcers or pustules are due to pyæmic emboli in the skin which later become surrounded with vivid erythema. This explanation was suggested to me by the case of a man dying from ulcerative endocarditis who in his last hours had a shower of emboli discharged into his blood stream most of which lodged in the skin of the abdominal wall. This was the early stage of the circular erythematous condition above noted.

CASE 3.—The patient was three years old and was too far gone for benefit to be expected from any treatment. The child was admitted with severe anginose scarlet fever and diphtheria was only discovered the day before death. Vomiting set in early, rectal feeding failed after one day's trial, and for two days before death no nourishment was retained. Two doses of antistreptococcic serum were given on the third and fourth days respectively, and 8000 units of diphtheria antitoxin on the day before death. Klebs-Löffler bacilli were found in the throat culture with mixed cocci. The heart's blood after death yielded a small variety of pure staphylococcus albus and cultures from the spleen showed fine colonies of a long streptococcus.

CASE 4.—The patient was eight years old and suffered from malignant diphtheria with huge brawny swelling of the neck and suppurative cervical adenitis. The throat was filled with putrid black sloughs and oozing blood giving off a horrible fœtor. There were hæmorrhages at various points over the body. On the first day the temperature was 101° F.; 6000 units of diphtheria antitoxin, obtained from Messrs. Burroughs, Wellcome, and Co., were given. On the second day the temperature was 99·6°; 2000 units of diphtheria antitoxin and ten cubic centimetres of antistreptococcic serum were given. On the third day the temperature was 98·6°; ten cubic centimetres of antistreptococcic serum were given. The swelling in the neck subsided rapidly but the general symptoms of toxæmia prevailed and death took place on the sixth day very rapidly from cardiac failure.

CASE 5.—The patient was four years of age and the symptoms were chiefly laryngeal from the first, so that tracheotomy was performed on the morning after admission. On the first day 4000 units of diphtheria antitoxin were given. On the second day tracheotomy was performed and long strips of membrane were taken out of the trachea. On the third day 4000 units of diphtheria antitoxin were given. There was frequent vomiting and early nephritis was noted. The throat was almost stopped by œdema and thick pus. On the fourth day 4000 units of diphtheria antitoxin and ten cubic centimetres of antistreptococcic serum were given. Nothing was retained by the mouth and only a little by the rectum. On the fifth day all the symptoms were alleviated and the tracheotomy wound was healthy; ten cubic centimetres of antistreptococcic serum were given. The child died suddenly on the same evening whilst being fed, presumably from heart failure. The necropsy showed an antemortem clot in the right auricular appendix.

## CONCLUSIONS.

It is only recently that the paper has been compiled from clinical, bacteriological, and post-mortem notes and temperature charts which had been kept for three years, and these conclusions are arrived at only after the careful re-examination of the cases at a distance of time when any excess of bias may reasonably be expected to have evaporated.

1. Antistreptococcic serum is of distinct value in a certain number of cases of scarlet fever, particularly in those where the throat lesion is severe and toxæmia is going on.

2. Bacteriological examination will give no sure guide as to the cases in which serum will be beneficial, therefore it is advisable to give the serum early and to make the bacteriological examination afterwards.

3. The serum ought to be given early in the disease just as in diphtheria. The longer the disease has lasted before the serum is used the less likelihood is there that it will be beneficial. Antistreptococcic serum is too often brought in with the strychnine and oxygen when it is unreasonable to expect it to do good.

4. If the first dose or two have no effect on the temperature its continuation will probably not be of any value.

5. The serum is liable to produce urticario-erythematous rashes.

6. Even in those cases in which it does no good there is no evidence to show that it does harm.

### *Diphtheria treated with Combined Sera.*

At the Public Health Laboratories in Bristol, where for a period of several years I had the opportunity of examining many hundred cultures of diphtheria, it was our experience that the severest cases clinically were those whose cultures showed an admixture of streptococci and Klebs-Löffler bacilli. Conversely when the cultures showed almost pure Klebs-Löffler bacilli the clinical characters were generally returned as "mild." It would be too much to say that the severity of the clinical symptoms was in inverse proportion to the number of Klebs-Löffler bacilli present in the culture, but that statement would be as true as many medical aphorisms are. Particularly severe cases are said to be associated with the presence of so-called "battalion cocci"—i.e., streptococci arranging themselves in squares or squads—and this statement is also borne out by my experience. An epidemic of diphtheria in North Somerset in which I was responsible for the bacteriology only confirmed my views on the above points. These things being so, the *raison d'être* for the treatment of diphtheria by antistreptococcic serum is established, its value remains to be proved.

On looking through the five cases recorded one can by no means say that the treatment was successful, but as at least three patients out of five were almost moribund on admission, as one died from heart failure when convalescent, and as one recovered almost miraculously the result was not so bad as the figures tend to show. I am strongly of opinion that in all cases of diphtheria where there is good evidence of septic infection—i.e., where there are sloughing in the throat and any degree of swelling of the neck and a high temperature—anti-streptococcic serum should be given, with some confidence that in a certain number of the cases the septic element will be alleviated. In most cases of diphtheria where death occurs during the first week or ten days of the disease the patients die from the septic element, not from the diphtheritic and, again, in most cases where death ensues after tracheotomy the patients die from septic infection of the air passages. In conclusion, therefore, those cases of diphtheria which present septic symptoms and those where tracheotomy may be required may with advantage be treated with antistreptococcic serum as well as with diphtheria antitoxin.

My best thanks are due to Dr. D. S. Davies, medical officer of health of Bristol and medical superintendent of the isolation hospitals, who always placed his laboratory at my disposal and was always ready to help me with his advice and to give me the benefit of his valuable experience.

Sikkim, India.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN.—It is hoped that the recent most successful ball at Covent Garden Theatre, organised by the Countess of Derby, on behalf of this deserving institution (the oldest so far as can be ascertained in the world), may be followed by a Waterloo Day Dinner during next season. Meanwhile, through the kindness of Mr. Charles Morton, anyone who is interested in seeing the erection of the new and enlarged hospital and is unable to spare time to cross Waterloo-bridge can see the building work now taking place on the bioscope at the Palace Theatre nightly about 11 P.M.

# NOTES ON A CASE OF BACKWARD DISLOCATION OF THE HEAD OF THE HUMERUS CAUSED BY MUSCULAR ACTION.

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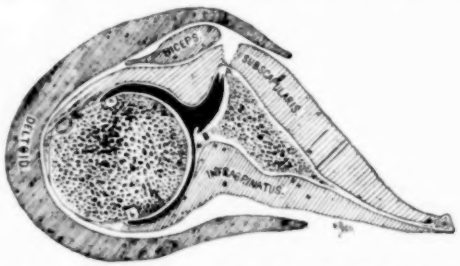
BACKWARD dislocation of the head of the humerus is rare, but backward dislocation produced by muscular action alone is, so far as I (C. W. M. M.) know, unique. The patient who met with this injury was a rather stoutly built but muscular man of about middle age, who was playing tennis. Trying to take a ball breast high with a back-handed stroke he missed his aim and instantly his arm dropped by his side, useless, and he was seized with violent pain in the shoulder. Dr. C. Gould May of Cadogan-place, who was immediately sent for, diagnosed a backward dislocation of the head of the humerus and called me in. There was no doubt as to the nature of the injury. The patient was sitting in the characteristic attitude nursing his elbow, which was flexed and pointing slightly forwards. The whole shoulder seen from the outer side had a peculiarly squared appearance. The arm was a little abducted and rotated inwards; there was a great hollow under the deltoid in front, so that the anterior portion of the glenoid fossa could be felt through the muscle, and there was a corresponding prominence behind. Active movement was impossible and any attempt at passive motion caused great pain. The patient was placed under an anæsthetic and as soon as the muscles were relaxed the arm was slightly abducted, drawn downwards, and rotated outwards. The head of the bone slipped in at once and there was no further trouble, the patient regaining perfect use of the arm in the course of a few weeks.

The mode in which this peculiar injury was caused is a matter of some interest. The head of the bone was caught behind the posterior lip of the glenoid fossa and held there. Probably the capsule was not torn or, at least, was not torn sufficiently to allow the head of the bone to protrude through it—an occurrence which, though not common, is not unknown in connexion with ordinary dislocation of the shoulder. The rapidity and the completeness of the recovery certainly favour this. The subscapularis was tensely stretched across the glenoid fossa and as soon as the head of the bone was dislodged by external rotation, combined with abduction and traction downwards, dragged it suddenly back into its place. The patient did not fall down or strike his hand or his elbow against anything, so that the displacement of the head of the humerus could not have been caused by leverage in the ordinary sense of the term. Nor can it be explained by sudden arrest of the momentum of the arm, for this would have carried the head of the bone forwards. The only explanation that appears to me to be feasible is that in the sudden knowledge that he had missed or was going to miss the ball, and perhaps in some way in an attempt to save the stroke, conflicting orders were sent down from the nervous system the co-ordination of the muscles around the shoulder-joint, upon which its security depends, was improperly carried out, and the head of the bone was simply dragged directly backwards over the lip of the glenoid fossa by the violent and unopposed contraction of the short external rotators.

I am greatly indebted to Dr. Keith for having worked out so thoroughly the anatomy of this dislocation, and to Dr. H. Balean for the excellent illustration that he has made from Dr. Keith's preparation.

*Anatomy of the Parts concerned in Subspinous Dislocation of the Shoulder*, by Dr. KEITH.

At the commencement of a back-handed stroke the humerus is rotated inwards, so that the anterior margin of the humeral head is in contact with the anterior margin of the glenoid cavity (see the points *a* and A in Dr. Balean's drawing). The subscapularis is then fully contracted and the anterior part of the capsule is thrown into a fold beneath the insertion of that muscle. The infraspinatus and teres minor are then relaxed but the posterior part of the capsule, which lies beneath their insertions, is taut and covers nearly two-thirds of the head of the humerus. In the rotation outwards which occurs in a back-handed stroke the posterior margin of the head of the humerus comes rapidly in contact with the posterior margin of the glenoid cavity (see the points *b* and B in Dr. Balean's drawing). During this movement the posterior part of the capsule, under the insertions




Section through left shoulder-joint, looking towards hand.

of the infraspinatus and teres minor, is thrown into a fold, while the anterior part becomes taut over the anterior two-thirds of the articular head of the humerus. In the specimen from which Dr. Balean's drawing is made the subscapularis was cut across (i.e., thrown out of action), the infraspinatus and teres minor were kept on the stretch, and the arm was then rapidly rotated outwards. In this movement the head of the humerus, acting on the glenoid ligament (B in illustration) as a fulcrum, moved outwards and occupied the fold formed by the posterior part of the capsule, assuming a position similar to that seen in Mr. Mansell Moullin's case. The glenoid ligament is the representative in the shoulder of the semilunar cartilages in the knee and there seems to me to be a similarity between this form of dislocation of the shoulder and that of a semilunar cartilage of the knee. Because the knee ligaments are so strong it is the cartilage which is dislocated; in the shoulder, where the ligaments are so lax, it is the bone that is displaced.

# 70 CASES OF LOBAR PNEUMONIA:

## AN ANALYSIS OF THE CLINICAL FEATURES AND POST-MORTEM CHANGES.

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FROM January 1st, 1902, to March, 1903, inclusive we had at Kensington infirmary upwards of 70 cases of pneumonia with 29 post-mortem examinations. Many of the patients being older than the average hospital patient we think that it may be of some interest to publish a brief summary of these cases, of which we kept notes. With the exception of three or four cases that recovered in January, 1902, they include every case occurring in Kensington workhouse and infirmary during 15 months.

As to seasonal prevalence March to June were the chief months. There was no case in July but August, which was unusually cold, gave us five cases and October seven cases. The patients were chiefly males. 32 males and six females recovered and 21 males and 11 females died.

With regard to the portion of the lungs affected, in 37 cases that recovered and three cases that died without post-mortem examinations the physical signs pointed to the

following: consolidation of the right lower lobe, 27; consolidation of the left lower lobe, eight; right apex, three; and both lower lobes, two. As to morbid anatomy, in 29 post-mortem examinations we found the right lower lobe consolidated in ten, the left lower lobe in three, the right upper lobe only in three, both lungs in four, the whole right lung in three, the whole left lung in four, and the left upper lobe only in two. If we add these together we obtain: right lower lobe, 37; left lower lobe, 11; right upper lobe, six; left upper lobe, two; whole right lung, three; whole left lung, four; and both lungs, six.

As to the relation of duration of illness to the nature of the hepatisation, in the St. Thomas's Hospital Reports[1] it is pointed out that the average duration of illness in those with grey hepatisation is only half a day longer than in those with red hepatisation, that in those intermediate between red and grey it is still shorter, and in the shortest illnesses of all grey hepatisation was found. The series consisted of 128 post-mortem examinations. It is suggested from this that grey hepatisation precedes red hepatisation in point of time. In our short series in the same way grey hepatisation was present in four out of five that died before the fourth day; on the other hand, those dying after the eighth day had grey hepatisation with one exception. The day of onset was known in 25: death before the eighth day, six red and 12 grey; death after the eighth day, one red and six grey. One with death on the twenty-sixth day of illness had red hepatisation only. The factors in determining how soon red or grey hepatisation shall be established seem difficult to understand. It seems to have no relation to the age of the patient. The above 25 divide up thus: under 50, three red and eight grey; over 50, four red and ten grey. In two of our cases grey hepatisation had gone on to local gangrene.

The lymphatic glands at the bifurcation of the trachea were noted in 26 of the post-mortem examinations. They were enlarged in 17 and not enlarged in nine. In five the enlargement was limited to one side. In one of these curiously the enlargement was on the healthy side. Compared with other diseases on which we made post-mortem examinations these glands seem more often enlarged in pneumonia than in other diseases with certain exceptions, of which pulmonary tuberculosis is certainly one. For the sake of comparison we have tabulated our other post-mortem examinations.

| — | Bifurcation glands affected. | Glands not affected. |
|---|---|---|
| Pulmonary tuberculosis ... ... ... | 42 cases. | 2 cases. |
| Diseases not thoracic ... ... ... ... | 3 ,, | 35 ,, |
| Broncho-pneumonia ... ... ... ... | 5 ,, | 3 ,, |
| Bronchiectasis ... ... ... ... ... | 1 case. | — |
| Chronic pulmonary congestion due to mitral disease ... ... ... ... ... | 4 cases. | 6 cases. |
| Pericarditis ... ... ... ... ... | 6 ,, | 4 ,, |
| Empyema ... ... ... ... ... ... | 2 ,, | — |

The heart was always dilated. A white clot was noted in the right auricle and ventricle 15 times and was absent seven times. In pneumonia, as in all other post-mortem examinations, we very rarely found white clot in the left auricle. We, of course, do not know whether white clot is ante-mortem or not.

The following lesions in other organs were found in 29 cases: chronic interstitial nephritis and liver normal, 6; large white kidney and liver normal, 1; normal kidney and liver cirrhotic, 3; normal kidney and liver fatty, 4; large white kidney and liver fatty, 2; pericarditis, 2; pericarditis and endocarditis and empyema, 1; mitral stenosis, 1; pulmonary tuberculosis, 1; carcinoma of the uterus, 1; congenital syphilis 1; diabetes, 1; and jaundice due to the pneumonia, 2. We had no case of meningitis although delirium was common, and coma occurred four times. Empyema occurred once in the cases that recovered.

Influenza preceded pneumonia, we believe, in five cases; of these three died. The case of pulmonary tuberculosis was in an early stage and no symptoms of this disease had occurred during life. Phthisical patients do not seem prone to lobar pneumonia. During last year 135 patients were under treatment for advanced tuberculosis of the lungs at Kensington. These were exposed to abundant fresh air in special wards and some were left out in the open under an awning through the winter. No case of pneumonia occurred among them.

With regard to the prognosis in pneumonia in old age it is grave; in middle age it is dependent on the condition of other organs, especially the kidney, judging from post-mortem examinations; in youth it is good. In cases between 16 and 30 years, 16 recovered and 3 died; between 30 and 40 years, 7 recovered and 5 died; between 40 and 50 years, 6 recovered and 7 died; between 50 and 60 years, 5 recovered and 7 died; between 60 and 70 years, 3 recovered and 3 died; between 70 and 80 years, 1 recovered and 6 died; between 80 and 90 years, none recovered and 1 died. Below 50 years of age only two of the fatal cases were in sound health before the pneumonia, the post-mortem examination revealing a chronic lesion of some other organ in ten cases; chronic alcoholism was admitted in two more, and plumbism in a third. Above 50 years of age the prognosis in a man previously healthy is certainly graver, but even between 60 and 70 years in our fatal cases some other lesion was present in each one. After 70 years of age, on the other hand, of the ten deaths four presented no other lesion and three only a fatty liver. A chronic interstitial nephritis was present in the remaining cases. That we need not despair on account of age alone, however, is shown by the following case. A man, aged 72 years, had a crisis after a typical pneumonic attack. After this he developed a hectic temperature and became delirious at night. A few days later an empyema was detected. Dr. H. P. Potter drained this by incision without resection of a rib and by inserting a small tube. Recovery followed.

The text-books teach that sweating before the crisis is unusual: thus Dr. P. H. Pye Smith says,[2] "Sweating during the height of the disease is uncommon and when present is not of bad import." In the present series it has not been very unusual and has been a good sign. 33 cases sweated before the crisis—seven died. 37 cases cases did not sweat—of these 25 died. In the 33, in over half sweating occurred throughout the attack on each day, but not the whole day. Sweating at the crisis occurred in nearly all. Sweating after the crisis only occurred once and this case nearly died from collapse at this time. Notes were taken from the beginning of this series in special reference to sweating.

Curiously enough, we only had one case of delirium tremens with pneumonia; this case recovered. It is, no doubt the exception. The common delirium was an active one, trying to get out of bed being a common symptom, but without the hallucinations of delirium tremens. Mechanical restraint in such cases makes the prognosis much worse, we believe. 24 had delirium throughout part or all of the illness; of these, 14 recovered. 46 had no delirium and of these 25 recovered. The only case that developed delirium after the crisis for the first time had an empyema. In the majority delirium ceased with the crisis, but two had delirium before and after the crisis for two or three days. Authorities differ as to the prognosis of delirium; thus Dr. Pye-Smith finds only 15 per cent. of a series of 86 post-mortem examinations had delirium and regards prognosis as favourable. The St. Thomas's Hospital Reports, on the other hand, give out of 1142 cases of pneumonia delirium in 22 per cent. of the non-fatal and 49 per cent. of the fatal. Hence, in this series the prognosis has been influenced adversely by delirium. In our series the prognosis was only made slightly worse by delirium except when this occurred throughout the entire illness; of these cases half died.

In two cases coma was the first symptom; both died. In two others unconsciousness supervened during the last day or two of life and deepened into coma. We had no case in which coma was followed by recovery.

With regard to the extent of the lesion, double pneumonia occurred in six cases with one recovery. This man was the only teetotaler of the six—aged 44 years; the onset was influenza. The average age of the fatal cases was 51 years. The authorities differ on the prognosis in these cases. Dr. Pye-Smith and Professor Osler both regard the prognosis as worse in double than in single pneumonia; the St. Thomas's Hospital Reports, on the other hand, show no increase in the risk of double over single pneumonia. They state that 10·3 per cent. of the non-fatal cases were double pneumonia, 11·8 per cent. of the fatal were double, hence the risk is not raised appreciably.

[1] Vol. xix., by Dr. W. B. Hadden, Dr. Hector Mackenzie, and Dr. W. M. Ord.

[2] Clifford Allbutt's System of Medicine, vol. v., p. 119.

As to apical pneumonia, we had eight cases, with five deaths. In half there was no delirium. In the fatal cases the age and the other lesions present would have been sufficient to cause death whatever the extent of the pneumonia had been. Professor Osler thinks that apical pneumonia is not specially dangerous, nor does it belong to the cerebral type as a rule. Dr. Pye-Smith says that "apical pneumonia is no more prone to delirium than basic." The St. Thomas's Hospital Reports show "only 7 per cent. of the apical pneumonias had delirium." In spite of these statements in the text-books there is a common belief that apical pneumonia is usually of the cerebral type.

We think that the pulse-rate is of great value in prognosis. In our cases it was very rarely above 120 in those that recovered. Once it was 150 and in another case 140 with recovery. In those that died it was very rarely below 120 towards the end of the illness. We had no case of hyperpyrexia. The fatal cases included two in which the temperature was remarkably low. In one for ten days it was from 97° to 98° F., once reaching 99°. This case presented pericarditis and pneumonia at the post-mortem examination. A second case after six days' pyrexia had for 12 days a temperature of from 97° to 98° and then died.

The mode of termination was as follows: crisis in 29 cases; lysis in seven. The seventh and ninth days are the chief for crisis in our cases, the sixth and eighth days for death—that is to say, the patient dies on the day preceding what otherwise would be the crisis. Three days was the time usually occupied by lysis.

As to the diagnosis, in a typical case this is easy; in an atypical case it is by no means so. Seven times our diagnosis was made in the post-mortem room and once a diagnosis of pneumonia was proved to be mistaken. There is a class of case in which coma is the chief symptom and the treatment may be (erroneously) that for uræmia in consequence, as in the following cases.

A man, aged 35 years, convalescent from Bright's disease, had been up some days, when on Jan. 13th he lost consciousness suddenly while up; he remained unconscious for 24 hours and then came round. On the 15th his temperature rose to 100° F. On the 16th his temperature was 100° and urgent dyspnœa of a hissing kind began. On the 17th there was gradual loss of consciousness ending in coma; the temperature fell. Death occurred on this day. Post mortem the upper two lobes were red and the right lower lobe was grey; the kidneys were small and white.

A man, aged 61 years, on May 15th fainted; he was admitted to hospital cold, blue, and giddy, but there was no pain. The heart was feeble. The lungs showed no signs of consolidation. There was no cough. Shortly after admission he became unconscious with stertorous breathing; he had incontinence of urine and repeated vomiting. The temperature was 102° F., the pulse was 140, and the respirations were 32. On May 16th he was still unconscious; the pupil reflex was present but the conjunctival reflex was absent. The temperature was from 103° to 104°, the pulse was 140, and the respirations were 42. The urine was suppressed, the breath was heavy, the skin was dry, and the chest signs were negative. Uræmia was diagnosed. Strychnine, pilocarpine, and a hot pack were given. The urine passed was albuminous. There was some sweating in the pack; collapse followed and death ensued six hours later. Post mortem there was right apical pneumonia in the red stage; the heart was dilated; the kidneys were normal. We had two other cases of the same class.

Another type of case is admitted as a lunatic. Of this class the combination of delirium tremens and pneumonia is doubtless the most common, although not so in our series. We had the following rather curious case.

A man, aged 65 years, was sent in with an outside diagnosis of "bronchitis and mental," as he had picked up a knife to throw at another man. His temperature was found to be raised; there was crackling at both bases; and his temper was irritable. His six days' temperature was from 101° to 103° F., his pulse was from 120 to 128, and his respirations were from 36 to 40. The sputum was scanty and rusty; the skin was dry. Pneumonia was diagnosed. Then followed 12 days' apyrexia. There was delirium for the last 16 days. The diagnosis of pneumonia was somewhat doubted during this time. Death ensued. Post mortem there was right apical pneumonia in the red stage.

Another type resembles acute tuberculosis.

The patient was a male, aged 16 years. He suffered from congenital syphilis. He had cough, wasting, and night sweats five weeks before admission. His breathing was harsh and there were abundant crackles on the right side; the right side was dull. The sputum was not rusty but muco-purulent. He was treated for six weeks, making 11 weeks in all. His temperature during this time was from 100° to 102° F. He had frequent sweats and there was progressive wasting. Tubercle bacilli was searched for many times; the result was negative, otherwise acute phthisis would have been diagnosed. During the last three weeks the sputum was offensive; empyema was now suspected, a needle was inserted and went into something of the consistency of liver and withdrew a little blood. The breathing was a little hurried. There was gradual exhaustion and death ensued. Post mortem in the right lung there was grey hepatisation with numerous patches of necrotic lung varying in size from that of a pin's head to that of a walnut; the right pleura was very thick, the cavity was obliterated, and the left lung had compensatory hypertrophy.

We had only one case of this kind. It shows the value of examining the sputum in cases that seem typical acute phthisis.

The only case in which rusty sputum was not diagnostic of pneumonia in our cases was the following.

The patient, a man, aged 71 years, was admitted for loss of flesh and strength. A low, irregular pyrexia persisted for upwards of a month. Cough was frequent. The sputum was rusty for 28 days and to within three days of death. There were dulness and weak tubular breathing in both posterior bases. Post mortem there was double hydrothorax; the lungs were a little compressed only; there was no pneumonia; the liver and kidney were cirrhotic.

When an elderly patient becomes slightly delirious at night and is noticed to be breathing fast he is more likely to have pneumonia than anything else whatever his temperature may be. He may, however, have pericarditis, especially if he has chronic Bright's disease. When, on the other hand, an elderly or bedridden patient has a rigor and sudden rise of temperature to 104° F. he is more likely to have erysipelas than pneumonia. It may be surgical kidney and in one case it proved to be perisplenitis at the necropsy. If the patient be an old soldier he generally tells you he has his old malaria again. This was not really so once in the 15 months at Kensington.

With regard to treatment, in these cases we tried to secure sleep by Dover's powder in the early stages, generally with some success and much to the patient's relief. In the latter part of the illness we tried, often unsuccessfully, to relieve the heart with leeches, strychnine, digitalis, and about three ounces of brandy. We did not see much benefit from doses of brandy above four ounces. We did not use oxygen. In conclusion, we have to thank Dr. Potter, the medical superintendent, for his kind supervision of our work and for permission to publish these notes.

# CANCER IN AUSTRALIA: A COMPARISON WITH OTHER COUNTRIES, TOGETHER WITH A SPECIFIC TREATMENT FOR THE PREVENTION AND ARREST OF THE DISEASE.

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*(Concluded from p. 428.)*

## TREATMENT.

THE treatment of cancer may be divided into two classes—viz: (1) the preventive, and (2) the arrestive.

*Preventive treatment.*—Herein lies the only cure for cancer, as only by preventing or avoiding the exciting causes can we hope to diminish the increase in the disease and its progressive death-rate. From the results of my investigation and practical evidence in my own practice I have not the slightest hesitation in stating that I believe syphilis to be one of the greatest exciting factors in the cause of malignant disease. It is not too much to state that the majority of

victims suffering from the effects of this disease, either acquired or inherited, have not received treatment for the necessary length of time to arrest the undermining of their tissues; and by the time they arrive at the cancer age their sad condition favours the development of malignant disease, more particularly in those who have inherited a malignant tendency. There is little doubt that syphilis is increasing in every country at an even greater rate than cancer. When we consider therefore how much medical science has done in discovering a successful treatment for arresting the ravages caused by this disease, also the length of time that has elapsed since the discovery was made, it amounts to almost criminal negligence on the part of those Governments, religious bodies, and faddists, who have deliberately delayed the necessary legislation for protecting their fellow subjects from this highly contagious and inherited disease.

Let us picture the number of unfortunate children who have inherited syphilis and are daily attending our schools, suffering day after day, year after year, their little brains, nervous systems, and general tissues being gradually undermined and ripening for such diseases as cancer, general paralysis, and other forms of insanity, while Governments and other public bodies look on hesitating to legislate, in spite of repeated warnings by nearly every section of medical science of the horrible results of this malady. Dr. Robert Jones, superintendent of the London County Council Asylum, Claybury, in a scholarly address on Development of Insanity in regard to Civilisation, delivered as late as July, 1903, at the annual meeting of the British Medical Association at Swansea, clearly points out the dire effects of this disease upon the nervous system, thereby causing general paralysis and other forms of insanity, and Dr. J. W. Ballantyne of Edinburgh has also pointed out that women suffering from syphilis at the commencement of pregnancy are usually unable to carry to full term and mostly abort before the seventh month unless specific treatment is begun early. It is not necessary to look far, therefore, for at least one, if not the greatest cause of the decrease of population in the Commonwealth of Australia and other countries.

Syphilis for the same reason also is one of the greatest irritating causes of malignant disease of the uterus, repeated miscarriages leaving their dire effect on this organ by the time the menopause is reached—the most favourable time for the development of cancer. It is evident, therefore, that unless notification and treatment of this disease are made compulsory the prevention and cure of cancer and the other diseases named will be sadly hampered. Alcohol, sugar, beer, and sweet wines should be avoided by all those predisposed to malignant disease or by those who have a rheumatic and gouty tendency, and the two latter constitutional diseases should be carefully nursed during life in all those who have any degree of cancer history. The avoidance of all substances which cause constant local irritation is absolutely essential to prevent cancer. I think it is not saying too much to infer that the constant irritation for a long period of the corset in females is one of the principal exciting causes of cancer of the breast, even more so than excessive lactation, as is shown by its prevalence among females who have never suckled a child. If women will persist in using such an unnecessary and in many cases fatal weapon let it be made in such a manner that the breast will not hang over the front or in any way rest upon the same, as the constant friction on the breast caused thereby is doing gradual but sure mischief. Great attention should also be given by medical practitioners to the repair of lacerations of the cervix, the vagina, and the perineum, thereby avoiding the continual use of pessaries which no doubt from the constant irritation upon the lacerated and cicatricial tissue promote a susceptibility to cancer. Circumcision should always be performed upon those suffering with phimosis. The pipe should be avoided by those predisposed to cancer and bad teeth should be attended to. The native mode of carrying the kangri in India under the clothes, hanging on the abdomen, thereby causing kangri cancer by continual friction, should be done away with and another method of suspension insisted upon. The native habit of chewing the betel leaf should be discouraged as it causes constant irritation and cancer inside the mouth which is so prevalent among the native population of India.

The improved sanitary conditions of the people and large cities of Australia have apparently had an indirect influence in preventing the susceptibility to cancer in the majority of the native population. The fact that the general death-rate is much below that of any of the European states and is steadily declining is no doubt largely due to the methods of paving the principal streets of the cities with hard wood blocks cut from the eucalyptus or gum trees, also to the improved system of drainage. The antiseptic and other sanitary properties of the eucalyptus hard wood, apart from its excellent economical wearing properties, render it particularly suitable for street paving and for building purposes. It should be largely taken advantage of in England and other countries as a means of improving sanitary conditions in the large cities.

*Arrestive treatment.*—The antidote or specific which I have no hesitation in saying is capable of arresting and preventing malignant disease and which has been a great success in my own hands is an Australian eucalyptus oil, to which for the purpose of distinguishing it from other eucalyptus oils the name "mulyptol" has been given at my suggestion. Mulyptol is an oil of a very high standard which is scientifically prepared from various species of the eucalypts *indigenous only to the Commonwealth of Australia*. It contains constituents possessing therapeutic properties which are not to be found in any eucalyptus oil obtained from any species grown outside of the Australian Commonwealth. It possesses not only the highest properties of the eucalyptus globulus oil but also valuable therapeutic properties which are not to be found in this oil. Mulyptol[1] may be relied upon as to the constancy (qualitative and quantitative) of its component parts and therapeutical results. My early experience in the use of the ordinary eucalyptus oils of commerce was that they varied so much in this respect as to be absolutely unreliable to compass the results which I have recounted. The British Pharmacopœial requirements likewise afforded no protection, but, on the contrary, left many loopholes for adulteration by the addition of other deleterious agents. This nefarious practice is eagerly and unscrupulously carried out in this and other countries to such an extent with some oils that it renders prolonged internal and local administration (a necessity, as I maintain, in the successful treatment of malignant disease) absolutely dangerous. It is in my experience very necessary that the highest oxygenating and other valuable properties of the various species of the Australian eucalypts should be combined if the best results are to be obtained.

In order to make clear the foregoing remarks it is absolutely necessary that one should possess a little more knowledge of the chemistry and therapeutic properties of eucalyptus oil than can be found in the British Pharmacopœia or its excellent companions or even any of the modern text-books on materia medica or therapeutics. I may therefore be pardoned for giving the following brief description of the chemical constituents which are to be found in the Australian eucalyptus oils, many of which are the outcome of a scholarly research on the eucalypts of Australia, especially in regard to their essential oils, carried out by Mr. R. T. Baker, F.L.S., and Mr. Henry G. Smith, F.C.S., curator and botanist and assistant curator and chemist respectively to the Technological Museum in the State of New South Wales, Australia, and published by the Government of that State in 1902. The research in question covered an analysis of over 125 different species and too much praise and encouragement cannot be given to these able scientific workers who have well laid the foundation for therapeutists to discover the medicinal values of the chemical substances determined so far among which are the following:—

*Oxides.*—Eucalyptol and eudesmol.
*Alcohols.*—Geraniol, methyl, ethyl, isobutyl, and amyl.
*Aldehydes.*—Aromadendral, citral, citronellal, butaldehyde, valeraldehyde.
*Ketone.*—Piperitone (peppermint constituents).
*Acid.*—Acetic acid (free).
*Sesquiterpine.*—Aromandendrene.
*Terpines.*—Pinene (both dextro- and lævo-rotatory).
*Esters.*—Geramyl acetate, amyl eudesmate, valeric acid ester and acetic acid ester.
*Phellandrene.*
*Cymene.*—Alkyl-benzene.

As many of the above constituents possess very valuable therapeutical properties, and as these are not to be found in *any one* of the species, it follows that the only method to obtain an oil possessing the full therapeutic properties of the eucalypts of Australia is to select a suitable one as a base and by a scientific system of fractionalising and distillation

[1] "Mulyptol" is prepared by the Australian Eucalyptus Chemical Company, 18, Mansion House Chambers, Queen Victoria-street, London, E.C., from whom it may be obtained.

any of the above constituents may be obtained which possess any therapeutic value and can be added to the base oil, thus securing a more valuable oil than can be derived from any single species. To illustrate this more clearly: for many years the oil from the eucalyptus amygdalina was the most valued variety and was included in the British Pharmacopœia of 1885, but it is now excluded by the tests given by the British Pharmacopœia of 1898, owing to the fact that it contains a large amount of phellandrene, an irritating substance. Yet this species contains other valuable properties, such as eucalyptol, pinene, peppermint ketone, and traces of eudesmol. The oil from the eucalyptus globulus, the principal commercial variety, on the other hand, possesses no phellandrene and contains a fair amount of eucalyptol, therefore this oil has been largely adopted for experimental purposes and for internal administration owing to the fact that it possesses no irritating substances. This I perfectly agree with, but, on the other hand, although possessing valuable oxidising properties, it is very much more deficient in these than many oils from other species; for instance, it possesses only traces of eudesmol, a very valuable oxide found very largely in other species. It possesses no aromadendral, piperitone, and many other valuable constituents. Another very important fact is that the eucalyptus globulus is the only species that appears to have taken kindly to the soil of other countries where it has been transplanted, and I may state that I have tested the therapeutic properties of the eucalyptus globulus oils obtained from Italy, the United States, Algeria, Portugal, and many other countries and in every instance I have found that they do not come up to the standard of the indigenous eucalyptus globulus of Australia. The very fact that only one or two of the numerous species indigenous to Australia can be grown with any success in other countries and that they have been robbed of their indigenous soil should be sufficient proof of this statement. At the same time, I do not wish to infer that they possess no real therapeutic value but only that they are uncertain in action. Many of these are sold as Australian oils, therefore it is time such misrepresentation should receive official notice and the profession and public be protected.

I trust that the foregoing remarks and brief description of the Australian oils will be an answer to the following statement which appears in an official publication issued by the United States Department of Agriculture, Bureau of Forestry, Washington, 1902, entitled "Eucalypts cultivated in the United States," by Alfred James McClatchie, M.A., agriculturist and horticulturist of the Arozona Experimental Station, Phœnix, Arizona, which tends not only to deceive the medical profession and public but to injure severely one of the most promising industries in the Australian Commonwealth. The paragraph to which I particularly desire to draw attention appears under the heading "Uses of the Eucalypts," p. 39: "The medicinal properties of the various component parts of the eucalyptus oil differ widely. Hence the oils from different species have very different medicinal values. Unless eucalyptol, the chief ingredient of the blue gum oil, has the same effect upon the human system as phellandrene—the prominent ingredient of the peppermint tree oil—the oils from these two trees must necessarily have different medicinal properties and the oil from a forest of mixed species must have very uncertain medicinal properties. The eucalyptus oil produced in America, where the groves from which leaves are obtained for oil are commonly of one species and where with rare exception a single species (blue gum) is the source of all the oil extracted, will necessarily be a produce whose properties are better known and more constant than that produced from mixed native forests. *Hence the importation of eucalyptol or eucalyptus oil from Australia or elsewhere is both unnecessary and a disadvantage to the consumer.*" (The italics are mine.) I may here state that I have recently brought the matter under the notice of various agents-general of the States of the Commonwealth, suggesting that all eucalyptus oils manufactured in Australia should be inspected and certified to by the various Government State analysts, defining when possible the species from which the oils are manufactured and that they should also receive the Government stamp in order that the medical profession and public may rely upon having an Australian eucalyptus oil manufactured from Australian indigenous foliage and not from the eucalyptus foliage of another country.

*Sanitary properties.*—The late Baron von Mueller, F.R.S., K.C.M.G., M.D., &c. (Government botanist of the State of Victoria), in his masterly work, "Eucalyptographia," makes the following statement: "The sanitary influence of the eucalyptus vegetation was surmised by more than one of the early Australian settlers, who were reluctant to place their conjectures on public record without positive investigation and final proof." He further states: "The incontestable sanitary effect of these prevailing myrtaceæ throughout Australia, except in some of the tropical coast tracts, must be ascribed to a complex of causes: (1) the ready and copious absorption of humidity from the soil by eucalypts and closely allied trees; (2) their corresponding power of exhalation much greater than that of many other kinds of trees; (3) especially the evolution of a peculiar highly antiseptic volatile oil; and (4) the disinfecting action of the dropping foliage on decaying organic matter in the soil, eucalyptus leaves themselves not causing any noxious effluvia through their own decomposition." The disinfecting and deodorising virtue of the tree being unquestionable, it was placed by Dr. Mosler and Dr. Goeze of Greifswald and Dr. A. Buettner of Melbourne in the wards of hospitals.

*The germicidal properties* of the eucalyptus globulus oil have been the subject of much research. Dr Bucholtz has shown that as a germicide it is of three times the strength of carbolic acid. Dr. Omelchenko's experiments have proved that the vapour of eucalyptol does not destroy bacilli so quickly as that of the oil of eucalyptus itself, the former taking 134 hours to kill the bacilli of anthrax while the latter only took 72 hours to destroy them. Mr. Th. Taylor found that albuminous compounds could be preserved in water which by maceration of leaves of eucalyptus globulus had absorbed some of their oil and perhaps other preservative particles, a few drops of the oil added to water serving the same purpose. Other kinds of volatile oils act very variously in this respect. He also observed "that it may be injected into veins and arteries of cadavers for purposes of preservation." Eucalyptus oil will preserve flesh of any kind as well as creasote. Beef sprinkled with it will dry hard without putrefaction. Mr. Taylor attributes its hygienic action to its high oxidising power as exemplified in the decomposition of miasmata.

It was through His Grace Dr. T. A. Goold, R.C. Archbishop of Melbourne, that the plantations of the eucalyptus globulus were first established for subduing the miasmatic exhalations of the Pontinian swamps, and this prelate, writing to Baron von Mueller on Dec. 17th, 1879, says: "It was first raised in the Campagna from seeds kindly presented to me by you on my visit to Rome in 1869 to attend the Vatican General Council. I handed the seeds to the superior of the Trappist monks who then occupied the monastery and grounds of the Tre Fontane, a most fever-stricken locality. On my next visit to Rome, made a few years later, I had the pleasure to see the good results of your kind and thoughtful presentation in the vigorous growth of many gum trees acting most wholesomely on the poisonous air of that part of the Campagna."

*Therapeutic properties.*—The first positive experiments upon the febrifugal virtues of leaves of eucalyptus globulus were made by Dr. Tristan in Spain and were published in the *Compilator Medico*, 1865. Dr. Tristan's observations were subsequently confirmed after grave clinical research by Dr. Adolph Brunel of Toulon, Dr. Carlotti and Dr. Tedeschi of Corsica, Dr. Gimbert of Cannes, Dr. Mares, Dr. Bertherand, and Dr. Miergnes of Algeria, Professor Lorniser of Vienna, Dr. Caston of Montpellier, Dr. Sacchero of Sicily, and many others, all of whom have placed the antifebrile properties of eucalyptus oil beyond a doubt. The success achieved by Mr. J. B. Curgenven in the treatment of scarlet fever; Dr. J. C. Voight, Mr. L. Kesteven, Dr. H. Bengafield, who will appear to believe it is a specific in typhoid fever; Dr. Voight, Sir John Cockburn, Dr. Bengafield and others, in diphtheria and croup; Dr. B. Ball in the treatment of phthisis uses hypodermic injections of eucalyptol and believes it counteracts the septic phenomena of the malady, as does Dr. Cena[2] in the treatment of certain pulmonary affections, such as chronic ulcerative phthisis and pulmonary catarrh. In gangrene, ulcerative diseases of the bladder, bowels, nose, and ear, gonorrhœa and syphilis, various applications have proved very beneficial. My first use of eucalyptus oil was in connexion with my gynæcological operations, having adopted it early in 1893 as my only antiseptic, owing to its non-irritating, non-poisonous, deodorising and already proved highly antiseptic properties. All dressings used in connexion with my work were prepared from this oil. It was therefore the

[2] Medical Record, June 15th, 1887, p. 284.

success achieved by its use in these operations, particularly in the treatment of accessible malignant lesions, that prompted me to investigate its actions internally, particularly with a view of still further testing its power of arresting the progress and process of the disease by preventing and arresting secondary deposits and recurrence.

The following is a summary of the cases treated, with results and some observations upon the same. The majority of cases of malignant disease in which I have used eucalyptus oil ("mulyptol") internally and externally were cancer of the breast and uterus. The whole of the 55 cases previously referred to were treated by this means only, operative treatment having been refused. In the majority of breast cases the tumour varied in size from that of a hen's egg to that of a goose's egg. All were in a state of proliferation and degeneration, showing more or less general œdema of the cellular tissue over the breast. In most of the cases there was superficial ulceration, the skin being adherent to the subjacent tumour, and with the exception of five cases the mass was not moveable at the commencement of treatment. In all cases the glands along the pectoral muscles and in the axilla were enlarged, most cases showing swellings in the neck along the anterior border of the trapezius muscle. With the exception of eight cases the arm corresponding to the breast in which the cancer developed was painful, tense, œdematous, and swollen almost down to the wrist. In 11 cases the nipple was flattened and in the remainder there was more or less retraction of the nipple. Emaciation was present in all cases and in 25 decided cachexia. The average time in which the disease was first noticed until treatment was begun was from three to six months. In all cases the treatment was carried out for a period of from six to 12 months under my personal supervision and directions, therefore a definite statement can be given as to the benefits derived from the treatment, and though inquiries were made for periods of from two to four years after treatment was discontinued in not one instance was recurrence reported. The following was the treatment invariably adopted. The internal treatment, which was administered simultaneously with the local treatment, consisted of the administration of mulyptol either in the form of emulsion or gelatin capsules. I generally began by giving five-minim doses every four hours after food for the first week, gradually increasing to ten-minim doses by the end of the second month. In addition to this administration the pure mulyptol was applied by means of inunction, being rubbed into the axillary and abdominal regions morning and evening, and inhalations were administered twice daily in the following form: mulyptol, 80 minims; light magnesium carbonate, 15 grains; and water to one ounce; a teaspoonful in half a pint of boiling water. In cancer of the breast the external treatment was as follows. After washing the breasts and glands with a warm emulsified solution of mulyptol, particular attention being given to the nipples, the cancer breast was vaporised for from 15 to 20 minutes, dried, and a piece of lint, which was kept soaked in a solution (1 in 4) of mulyptol and olive oil, was placed on the breast and covered with oil-silk dressing and a firm bandage applied. As soon as all crusts which were present had been removed several dressings of lint soaked in pure mulyptol were placed over the growth and usually after a week of such treatment the nipple and other ulcerated parts appeared to have taken on a raw but healthy appearance. Daily dressings of mulyptol and olive oil (1 in 2) solution were continued throughout the treatment. The breast became red and swollen for the first two weeks, due, no doubt, to a condition of leucocytosis, but from this onwards there was a subsidence in the general infiltration and by the end of the first month, under a condition of fibrosis, the growth was found to have diminished considerably in size and had become more freely moveable. The daily vaporising and application of a 1 in 2 solution of mulyptol and olive-oil dressings with a firm bandage were all the local treatment usually required. Although the results appeared slow for the first two months it was found on an average that by the end of the fourth month all signs of the growth and malignant condition had disappeared and the beneficial effects of the treatment were apparent. The enlarged axillary glands and the glands in the neck had disappeared and in most cases the adherent skin had become soft and more supple. In cases of cancer of the uterus the above internal medication was adopted; in addition to which the breaking down surface of the cervix and invaded parts was scraped, painted every alternate day with pure mulyptol, and the vagina packed with a long strip of mulyptol gauze. This dressing was removed in 24 hours, a warm mulyptol douche administered, and a tampon of cotton-wool soaked in a solution (1 in 2) of mulyptol and olive-oil or glycerine applied. The cervix and ulcerating parts very soon took on a healthy appearance, all fœtor and decomposition being checked, and a gradual but sure arrest of the pathological progress and process of the disease was accomplished. In addition to the above treatment in some cases daily local vaporising by means of hot mulyptol sitz baths was found to be particularly beneficial at the outset, especially in those cases where a rapid degenerating process of the disease with much hæmorrhage had been going on prior to commencing treatment. Treatment was persevered with for from three to six months after all signs of malignant disease had disappeared.

It is very important to observe the stages in the progress of the patients towards recovery by means of the foregoing treatment. During the first two weeks a leucocytosis in the local lesion is produced, and the first improvement appeared to be in the local lesion when ulcerated taking on a healthy healing surface, with signs of a subsidence in the general infiltration, and by the end of the first month a marked diminution under a condition of fibrosis in the size of the growth was noted and the glandular enlargements had considerably lessened. In the breast cases general œdema of the arm and intense pain had almost disappeared by the end of the first month and the above improvements were much more apparent. There was a more healthy appearance in the general condition of the patient with a slight increase in weight. This gradual improvement is noted throughout the treatment. I desire to state that the improvement, although marked, is slow for the first two months, after which time it becomes more rapid; of course, this is all according to the stage of the development of the disease at the time treatment is begun.

As the majority of malignant cases which I have treated have been disease of the breast and uterus I would suggest a trial of the aforesaid internal treatment for all cases of malignant diseases. The local treatment, of course, would be varied according to the locality and nature of the lesion. Thus, in cheek, tongue, throat, and nose cases daily atomising and vaporising should be persevered with, together with daily applications of pure mulyptol itself to the local lesion and also with daily inunctions with the oil. I may here state that I am at present treating several cases of cancer of the cheek and tongue with mulyptol and its various medicinal preparations and dressings with very gratifying results, and of these I intend giving full details at a later date. For malignant disease of the rectum, rectal injections of half-drachm doses in solution (1 in 4) of olive oil or in the form of suppositories may be added to the treatment. I have also found that hypodermic injections of mulyptol in from five to ten minim doses in liquid paraffin were very efficacious in many instances. Hypodermic treatment should be confined to the abdomen, the oil being rapidly absorbed into the system. I frequently begin treatment by hypodermic injection into the growth when hard and deep seated. For internal or inaccessible malignant diseases the internal treatment must be suited to the particular case and locality of the disease. Capsules or emulsion, rectal injections and inunction, together with daily inhalations are suggested. In hospital treatment the wards should be daily washed with mulyptol disinfectant solution and oil sprinkled about the beds. Mulyptol and its preparations might supplant all other antiseptics in malignant surgical treatment, being non-irritant, non-poisonous, and fulfilling all the needs of a general antiseptic.

Before concluding, it is necessary to consider the mode of action of eucalyptus oil when given internally. It acts as an antiseptic. Cases are recorded of tuberculous bacilli having disappeared under its treatment. Numerous cases of diphtheria and typhoid fever have been rapidly cured under its internal administration, from which results it would appear that it possessed a specific action either directly on the bacilli or by rendering inert their toxins. In malignant disease there is every evidence of its having a specific action on the local lesion itself. It acts in removing and relieving congestion and inflammation by promoting rapid absorption. Its antipyretic properties are already well known, the temperature in typhoid fever, according to Mr. Kesteven[2] and others, becoming normal in 14 days. It acts

[2] Eucalyptus in Typhoid Fever, Practitioner, April, 1887, p. 225.

on the general nutrition of the body, evidence of which is given by the increase of weight. This is probably due to the fact that it possesses a power of raising the nutritive force, thereby increasing the vitality of the tissues to resist the action of any specific toxins which may be present. The chief interest, however, lies in its internal administration, as no other antiseptic or drug possessing germicidal properties can be given in such large doses continuously and for such a length of time as eucalyptus oil. Dr. Voight in fever cases administers drachm doses by rectal injections (1 in 4) of warm olive oil, repeated at frequent intervals when the temperature is high. He finds its antiseptic action very beneficial in cutting short an attack of influenza and in preventing the general breakdown and nervous phenomena usually following this disease. Its non-irritating and non-poisonous properties render it particularly serviceable for inhalation purposes. Dr. A. Irsai of Budapest by his laboratory research on the inhalations of various substances shows that eucalyptus globulus oil can be inhaled into the lungs and finest air passages without any fear of irritation. He found that oleum juniperi, oleum terebinthinæ, and oleum pini sylvestris irritated the lungs by setting up a condition of spasmodic contraction of the pulmonary vessels, the oleum pini sylvestris doing so especially. On the other hand, he found that guaiacol and creasote set up rapid relaxation of the vessels and great hyperæmia of the lungs, and he stated that it was needful to exercise due vigilance in employing these where there was any tendency to hæmorrhage.

As it has been proved that any prolonged irritation is liable to set up malignant disease it is evident that such treatment as the x rays, Finsen's light, and applications of irritating drugs and caustics is strongly contra-indicated, for even should the primary lesion be temporarily improved thereby the continuous irritation on the surrounding tissues is almost sure to favour extension or secondary lesions. Far better is early and prompt removal, or if this is not permissible then local treatment should be decidedly of a non-irritating and non-poisonous nature. This I claim for the treatment suggested in this article, used either internally or externally, and I can confidently recommend it to the profession with every prospect of success in the arrest of malignant disease.

*Summary.*—The positive conclusions at which I have arrived as the result of this investigation are as follows: (1) that cancer is not due to a bacterial or parasitic origin; (2) that cancer is a constitutional disease due to a specific or malignant virus originating in the blood and chiefly manifesting itself after 35 years of age and at its greatest virulence between 50 and 70 years of age; (3) that malignant disease may be congenital and certain forms acquired by infection or contagion; (4) that the principal factor in the cause is hereditary tendency; (5) that the principal exciting factor is prolonged local irritation acting on a constitution suffering from an inherited tendency or which has been debilitated through want of treatment of one or other of the following diseases in their order of frequency: syphilis, alcoholism, obesity, rheumatism, gout, or tuberculous disease; (6) that the principal dietetic factors in the cause are sugar, beer, and alcohol; (7) that the principal hygienic factors in the cause are woods and forests whose dropping foliage decomposing causes stagnation of water; also badly formed streets and defective drainage in cities, and the overcrowding, badly housed and fed population of cities; (8) that cancer is a preventable disease and the absolute cure is only to be found in the means for preventing its exciting causes and completely removing the same; (9) that the sanitary indigenous foliage of the following natural orders—(*a*) myrtaceæ, (*b*) lauraceæ, and (*c*) coniferæ—appears to exert a specific influence in rendering the native born population of the countries where they grow almost immune from malignant diseases other than might be caused by prolonged local irritation (the Australian eucalypts belonging to the myrtaceæ exert the greatest influence in this direction); (10) that a eucalyptus oil obtained by means of a scientific preparation from various species grown in Australia possesses a specific action in arresting the pathological progress and process of malignant disease; and (11) that all internal and local treatment of a poisonous or irritating nature should be absolutely avoided, more particularly such local treatment as the x rays and Finsen's light, as they are likely to set up secondary conditions around the site of lesion. Far better is early and prompt removal when the malignant growth is accessible. My object in writing this article is to throw some further light on the cause of malignant disease and to bring more prominently before the notice of the profession a remedy which, though known in some degree, is in my experience insufficiently known and certainly insufficiently appreciated. And whilst strongly advocating its more general use in the treatment of wounds and specific fevers, &c., it is in relation to its specific effect as applied to the disease of cancer that I would urge the profession to give it a fair trial.

Welbeck-street, W.

## CÆCAL CONCRETIONS.

BY ALEXANDER FORSYTH, M.D. GLASG.

ON Jan. 20th, 1903, Lord Lister wrote to me: "I trust you will not long delay the publication of your experience with the concretions and their relations to appendicitis." The subject was not in his line when he was in practice but he showed great interest in my views and in a typical case of cæcal concretions. The subject has grown since then till it far exceeds the limits that the Editors of THE LANCET can deal with. I therefore on their advice propose to lay my position before my fellow practitioners and to ask them to give their personal experience on the subject and to put my practice to the test.

My first and fundamental proposition is that the cæcum contains about two pounds of concretions. I have recognised these concretions since 1886. Before that I had occasionally met them and wondered where these decomposing masses had been hidden after all the other decomposing matter had been got rid of and the patient was now passing healthy motions, but could not answer satisfactorily. In 1886, however, I was called to see a widow, aged 33 years, whose sister was alarmed at her "wandering in her mind." She had delusions and illusions, thought that she had been visited by friends but had not, asked me why I had not called on her yesterday which I had done, and saw rats running over her bed and picked at insects, &c., on the counterpane when there were none. A clear mouth-to-anus passage was obtained after a long course of enemata, &c., but no improvement followed. Then her sister showed me a large "peculiar" fœtid motion which she had washed out, consisting of hardened but not quite dry concretions packed together with suggestions of the shape of their receptacle. The only place which they could have come from was the cul-de-sac of the cæcum, below the ileo-cæcal valve, through which fresh fæces had passed *over* it. From the very day they were voided the mental symptoms ceased and convalescence set in. The contents in this one case seemed wholly injurious and some active process of sulphuretted hydrogen formation was indicated.

I followed up the lesson I learnt then and proved its use in numerous cases since. Under the name of "loaded cæcum" I recognised a pre typhlitic stage and treated it successfully in every case—that is, I avoided the later and more dangerous conditions from the appendix complications. The general types of my cases may be given as follows.

The first type are women who live a quiet and uneventful life. They bear the marks of sorrow and anxiety in their faces and deportment. They are distinctly melancholy but cannot be described as hypochondriacal. Emaciation of the body is distinct. They have no life, no jollity at all, though their years may not be great or their social condition unsatisfactory in any respect. They are aged before their time and look gloomily on everything and everybody. A widow, aged 69 years, who was seen in 1892, was one of this type who seemed to have her life brightened and prolonged by clearing out the cæcal concretions. After six weeks' persevering work the apparently interminable "bilious stools" were followed by well-digested "baby motions," the cæcal concretions were got at and cleared out, and her mental and physical oppression disappeared. The deep furrows in her face and forehead cleared away, her cheeks filled up, and she threw ten years off her shoulders.

The second type is fully represented by a class of young, healthy men who very unwillingly give way to sickness but who have quite their share of illness from loaded cæcum. Under the name of "constipation" and the temporary relief afforded by aperients they keep about their work with

the same saddened, anxious faces and malnutrition of the body that are present in the other sex. In them also clearing away a couple of pounds of cæcal concretions changes the men in spirits and health permanently. I refer to police officers whose tours of duty are one month day work and next month night work.

In one case in point the following record was given. On July 10th, 1897, he was attacked with "appendicitis" which lasted for 26 days. On Dec. 22nd of the same year he was seized with "abdominal pains," being ill for 20 days. On Nov. 2nd, 1898, "dyspepsia" came on and lasted for 18 days. In 1899 he suffered from "constipation" for 19 days. On July 11th, 1899, he was again attacked with "appendicitis" which lasted for 91 days. This long list means that the man was not cured till the last occasion. The shorter treatment permits only of clearing out the colon and removes one of the two conditions necessary to so-called appendicitis. The patient is therefore safe for the present. But the cæcal concretions remain, the colon gets blocked again, with a return to the sick list. He called on me in February, 1903, and his account of himself is worth recording.

On the first occasion (July, 1897) he went to St. Thomas's Hospital, where he "lay in bed for a week and had milk and castor-oil only." The last time (July, 1899) he was under my care as his divisional surgeon. "I was in a terribly weak state and walked about in misery always. I was always tired and wanted to lie down; always in very low spirits. I felt regularly weak; knocked up. I could not eat or drink anything; if I did I brought it up. I don't want to have a bout like that again." Persistent enemata with large doses of olive oil taken internally two or three times daily constituted the treatment. The concretions began to come away in about six weeks. I continue his narrative. "The stones came away nearly white, about the size of a pea, and a lot of phlegm-stuff with them; a good many of them at different times, loose in the injections, always floated, soft looking" (the effect of the oil); "I never touched any food till they came away. They were coming away for a week or a fortnight. I should think quite a couple of pounds. I never felt ill since and had no return of the stones (i.e., over three years). I am quite different. I can eat and drink anything and enjoy a good dinner and do a bit of gardening." He looks plump and cheerful and he still retains his vermiform appendix.

A third type is constantly obtruding itself on the general practitioner and calling for his help. It includes the large class suffering from "windy spasms." It might be called the "borborygmous type." The following is a case in point.

The patient, a married woman, aged 38 years, was a strong, active, well-nourished person engaged in a very trying business. Her abdominal girth was so great that she had not been able to stoop. It was so obtrusive and obstructive that conversation with her could only be carried on at a considerable distance. Her facial lines also were coarse and bloated. For years she had suffered from wind, pain in the descending colon and above it, constipation, frequent faintness, palpitation, breathlessness (terrifying her with a fear of impending death), loss of appetite, and discomfort so great as to drive her frequently for relief to alcoholic stimulants. Two years ago I told her that she could be cured only by submitting to a six weeks' course of treatment to empty her cæcum. But this did not commend itself to her. She had only palliatives and temporary relief from aperients from many sources. At last, on March 21st, 1903, she was so very unwell and low-spirited from her continual ill-health that she asked me to undertake what I had so often recommended, hoping that I might not require six weeks. I told her the probability now was that a longer time would be required to finish the work, more likely three months, but in any event she was to permit me to finish it and then I promised she would be free from her constant illness.

The case is of great interest in many ways and I kept an account of my daily work but will here give only a few extracts. The colon was choked from beginning to end with a large cushion of sulphuretted hydrogen saturated, hard, fusiform fæces. On April 22nd, after a month, she could feel the warm enema trickling up and across and, when she turned on her right side, down the colon to the cæcum. A few whitish specks like "curdled milk" (mucin) appeared floating on the surface of the returned enema. She had observed it two or three times already. I promised her a closer and larger knowledge of them before long. On the 25th she had a clear, free drain-pipe (the colon) that would carry off any amount of gas (34 days). On the 27th I was greeted with the following: "I had such a lot of very funny stuff come away after you left on Saturday (25th), a lot of white jelly stuff, clear, and the pieces as big as the top of that bottle (two inches in diameter). I never had such stuff come from me and such a lot of it." I reminded her of my promise of the 22nd that she would see much more of the jelly. My previous case had drawn my attention to this jelly where the surface of the water had been covered with a layer of pieces like "curdled milk," which pieces the microscope showed to be mucin with its numerous variously shaped "goblet cells." Occurring again here and seeking for its meaning I could only think that the jelly had stood between me and the concretions, forming a pellicle over them which the stream of water had broken up and washed away, then only allowing me to act on the old, hard, dry concretions. When I had entirely got rid of these (in 37 days) on May 26th my opinion was strengthened by a similar pellicle coming away whole and with a tail hanging from it in the shape and position of an appendix. On the 26th the following note was made: "Enema brings away an empty bag in the shape of the end of the cæcum with a prolongation like an appendix but much larger." There was no sign of abscess or inflammation in all this and the pyogenic-looking membrane was a tough protecting layer with probably a physiological function rendering these old concretions harmless. The membrane was accompanied by some dozen or less small typical concretions, *fresh* for the first time. (65 days passed before the appearance of fresh concretions.) The cæcal contents had been open to attack from the time the large jelly stool appeared on April 19th, 27 days after commencement of treatment. Therefore the actual washing away of the cæcal contents required 37 days.

As the case progressed the patient's facial lines became finer, her protuberant abdomen receded, and she could stoop when she was reduced to 52 inches, about half way through the treatment. On May 27th the following note was recorded: "A special interest in this case was the persistent hardness and dryness of the cæcal concretions, never to the end coming away in masses like most others." On June 20th the bowels had acted two or three times every day without aperient—"a baby's really." The patient felt better, could talk better, think better, and for the first time acknowledged the complete benefit which she had derived from this long anxious work. She said that her husband also saw it as did all her friends.

There is a class of cases, the largest of all, from which I expect the most striking evidence of benefit from this treatment. I have not had the opportunity of putting my practice to the test in this field, but as a district medical officer since 1868 I have had only too ample means of forming an opinion and that is one of dissatisfaction with the constant march of so many, young and old, to lunatic asylums. I know the profound effect on the mind produced by a loaded cæcum and the return to mental health when it is emptied. I have seen epileptic fits caused apparently by it only and stopped by the treatment. Peripheral irritation also seems to be the only explanation of the terrible fits in puerperal eclampsia and I recall cases of lunacy where now I would adopt this treatment before filling up the certificate. May not some, many of the thousands of patients in these asylums, be benefited by this treatment? The delusions in the first case would have warranted a certificate: emptying the cæcum dissipated them. The medical officers of asylums have an ample choice before them; I ask them to help on the inquiry. It is worth while emptying the cæcum.

## NOTES ON THE ETIOLOGY OF LUPUS AND ON CASES TREATED BY THE X RAYS AND FINSEN LIGHT.

BY FRANK H. JACOB, M.D., M.R.C.P. LOND.,
PHYSICIAN TO OUT-PATIENTS AND TO THE ELECTRICAL TREATMENT DEPARTMENT, NOTTINGHAM GENERAL HOSPITAL.

I HAVE attempted to work out the personal susceptibility and also the actual source of infection in 30 cases of lupus under my care with the following results. In 22 of the cases there was a history of phthisis in near relatives, while in eight no such history could be obtained. In three cases the lupus appeared while the patient was actually nursing a case of phthisis and in one while nursing a case of hip disease

with a discharging sinus. In three cases lupus appeared in an infant whose parent was suffering from phthisis and in one case the father had died a year previously from phthisis. One patient habitually used the same towel as her sister who was suffering from lupus. In two cases the disease arose on the wrist of a patient suffering from phthisis. In one case it arose from the margin of a wound left after excision of glands in the neck and in two cases it arose from the margin of a chronic abscess in the neck. In one case it occurred in the wound caused by a blow over the tibia. Thus in 15 cases the origin could be traced with tolerable certainty. In addition I may mention that six cases presented blocking of a nasal duct previously to the appearance of lupus of which cases four were probed prior to the onset of this disease.

*Treatment of the cases of lupus.*—The treatment which I now believe to be the most efficacious is as follows. For extensive cases the x rays should be applied as a routine treatment for ten minutes three times a week. I aim always at producing a mild reaction, as in my experience a reaction leads to a more rapid result. For special cases modifications are necessary. For example, I have one patient the whole of whose face (except the forehead), left arm, left foot (except the sole) and leg up to the knee were affected with rapidly spreading active lupus; that on the face was of the superficial plaque variety; on the arm and leg it was likewise of the plaque variety but deeper, the dorsum of the fingers showed a markedly verrucose condition, the leg was very much thickened, and the dorsum of the foot was ulcerated. The face, arm, and leg were each treated twice a week with 20 minutes' exposure on each occasion. Now, after two years' treatment I can only find on the face two small areas close to the ear of about the size of a threepenny-piece, on the arm no lupus at all, on the leg a few small areas close to the knee, the thickening is markedly less, and the ulcer has long ago healed. These few peripheral portions are now receiving special attention and will soon be cured. Another patient lives a long distance away and is moreover very poor, consequently she is only able to attend at intervals varying from four to eight weeks; she then stops a week end with relatives in the town and has 20 minutes' exposure on Saturday, Monday, and Tuesday. This causes a distinct reaction. She had originally a very thick patch on the left cheek of ten years' duration, about two by one and a half inches in diameter. After 18 months' treatment she is now almost cured, there being just a little very thin lupus at the upper margin.

*For ulcerated septic cases* the x rays have proved most admirable, cleaning and healing being completely established in from four to eight weeks; the subsequent curing of the lupus of course takes very much longer.

*Deep nodules* formerly gave me considerable trouble as they were apt to persist when the more superficial portions had entirely disappeared. In my cases the deepest nodules have been situated in the centre of the cheek and in the cartilaginous portion of the nose. I now treat them as follows. With a wooden match I place a small drop of pure phenol on the top of the nodule; when the surface is thoroughly anæsthetic I penetrate the nodule with a pointed match dipped in pure carbolic acid and when the deeper portion is also anæsthetic I thoroughly rub the carbolic acid into the nodule, then while the part is still white from the carbolic acid I apply the Finsen lamp (London model), limiting its action to the area required in order that I may induce a somewhat severe reaction without unduly punishing the patient. This repeated some three or four times is usually sufficient to establish a cure. The disadvantage of this treatment is that it is liable to leave small pits.

I treat *small limited areas* in the same manner as the deep nodules, in some cases producing a reaction with the x rays instead of the Finsen lamp. The result is very satisfactory and the most rapid with which I am acquainted.

*Rodent ulcer.*—It is an advantage of life in a small town that one is able to trace the after-history of cases with more readiness than is possible in London. This after-history shows recurrence to be extremely frequent; this is, I believe, due in a great majority of the cases to insufficient treatment. Inasmuch as the disease is not the ulcer but the new growth it is obviously necessary to continue treatment until every suspicion of new growth has disappeared and if this be rigorously carried out I believe that recurrence will become as rare as it is now common. There is, however, another cause of recurrence—viz., that the ulcer is due to a true carcinoma of the skin and is not a rodent ulcer. I have one such case with deep excavation and very thick hard margins, which though once healed by the x rays recurred and has progressed rapidly in spite of treatment.

*Eczema.*—Two cases of eczema of the palm have been treated by the x rays; they both presented great thickening of the horny layer of the epidermis, which was traversed by deep bleeding cracks; for eight years one and for seven years the other, had been unable to perform even light household duties such as dusting. The first case after six months' treatment was completely cured and now remains after three months without a relapse, though she does her own scrubbing. The second case was cured by one month's treatment, the diminished length of treatment being due to my experience of the first case having taught me that the necessary factor in the treatment was to produce sufficient dermatitis to cause active desquamation.

*Ringworm.*—It was in July I first treated ringworm by depilation by means of the rays; since then my aim has been to reduce the number of exposures necessary to obtain depilation to the minimum and to produce it without any reaction, for my experience with lupus in hairy parts taught me that no trace of reaction is necessary for this purpose. With my apparatus I can accomplish this by two applications of half an hour each at intervals of a fortnight. I am now aiming at depilating only the affected hairs and in one case I have, I believe, effected this.

*Lupus erythematosus.*—I have only completed treatment in one case and that a chronic patch of the sebaceous type of eight years' duration occurring on the nose. This has now been completely cured for four months and shows no indication of relapsing.

With respect to apparatus, the essential point is to know your own plant, more especially your tubes, and when in doubt to try them on yourself, so that you may be certain of either not producing a reaction or inducing that degree of dermatitis which you may desire without risk of producing a serious burn.

Nottingham.

# A Mirror
OF
# HOSPITAL PRACTICE,
## BRITISH AND FOREIGN.

**Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.**—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

## UNIVERSITY COLLEGE HOSPITAL.

### A CASE OF LONGITUDINAL FRACTURE OF THE TIBIA.

(Under the care of Mr. RICKMAN J. GODLEE.)

FOR the notes of the case we are indebted to Mr. J. B. Burt, late house surgeon.

A man, aged 46 years, was admitted into University College Hospital on Nov 21st, 1903. Whilst getting off an omnibus he struck his left knee forcibly against the mudguard behind the wheel. He was able to stand after the accident but on attempting to walk fell down. On admission to the hospital the injured leg was so painful that any accurate examination was impossible. The leg was swollen and the knee joint was distended; it was evident that there was some severe injury about the joint but its exact nature could not be made out without an anæsthetic.

Under chloroform the physical signs were as follows: 1. Genu valgum—this deformity could be reduced by extension applied to the foot. 2 Undue lateral mobility of the tibia on the femur but no increased antero-posterior mobility. 3 An increase of the width of the upper end of the tibia; measured with callipers the greatest width of the upper end of the right tibia equalled three and a half inches and the greatest width on the left side was four inches. Perhaps some slight allowance should be made for the œdema in the latter case. 4 An undue projection outwards of the external tuberosity of the tibia without an equal displacement of the internal tuberosity. 5 No evidence of a transverse solution of continuity of the femur or the tibia. 6. When the upper end of the tibia was compressed laterally a clicking sensation was felt. There was also

some coarse, soft grating when the knee was flexed. 7 Distension of the knee-joint. Under the anæsthetic the genu valgum was reduced by extension and a Croft's plaster splint was applied. A skiagram showed a longitudinal fissure beginning at the articular surface of the tibia just external to the middle line and extending downwards for two inches. On the inner side a small, oblique fracture between the internal tuberosity of the tibia and the shaft could be seen. Ten days after the splint was applied massage and passive movement were employed. The swelling of the leg was still considerable. Ten days later the patient got about on crutches, the injured limb being still fixed in the Croft's splint. When the patient left the hospital the width of the tibia was markedly greater than that of the other side. He could bend the knee through an angle of 30° only. Attempts at forcible bending of the knee apparently caused much pain. He attended at the hospital to be seen two months after the accident. Movement was still impaired; he could now move his knee through an angle of 60°.

*Remark by* Mr. GODLEE.—The rarity of the accident and the very imperfect accounts of it which are to be found in the text-books make it worth while to put this case on record, especially as the exact nature of the injury is now ascertainable by means of a skiagram.

## LINCOLN COUNTY HOSPITAL.

A CASE OF TOTAL PARAPLEGIA DUE TO CARIES OF THE MIDDLE DORSAL VERTEBRÆ; COSTO TRANSVERSECTOMY; COMPLETE RECOVERY.

(Under the care of Dr. W. H. B. BROOK.)

A YOUTH, aged 17 years, was admitted to the Lincoln County Hospital on Sept. 22nd, 1902, complaining of loss of power in the legs of four weeks' duration. In November, 1901, he noticed a lump on his spine in the mid-dorsal region which was very painful but the pain disappeared after two weeks' rest in bed. He was able to resume work till May, 1902, when he had to give up. He wore a plaster jacket from March to May, 1902, since which time he had been confined to his bed. During the last four weeks he had lost the use of his legs and had had incontinence of urine. There was no family history of phthisis or any form of tuberculosis.

On admission there was an angular curvature of the spine in the mid-dorsal region, the sixth and seventh spinous processes being very prominent. Percussion caused no pain and there were no signs of the pointing of any collection of pus. There was a girdle sensation at the level of the epigastrium. Sensation in the legs was much impaired but not entirely lost. The patient could move the legs but not well. The legs were spastic but there was no muscular atrophy. The knee jerks were exaggerated but the Babinski reflex was absent. There was difficulty in retaining the urine which was acid, containing phosphates but no albumin or sugar. The heart and lungs appeared to be healthy. A seven-pound extension was applied to each leg, the foot of the bed being raised, and the patient was ordered compound syrup of phosphate of iron with cod-liver oil and malt. On Nov. 7th, during the six weeks that had elapsed since his admission, the patient had become steadily worse. He had now complete paraplegia; sensation was totally lost in the right leg and almost so in the left. The knee-jerks were much exaggerated and ankle clonus was violent. Babinski's phenomenon was present in both feet. Urine and fæces were passed unconsciously. There was a girdle sensation at the level of the seventh rib but no pain over the prominent spinous processes. In spite of the most careful nursing there were sores on both heels. The temperature was from 98·4° to 98·8° F. A skiagram was taken which showed blurring in the region of the seventh and eighth dorsal vertebræ. From this it was considered that tuberculous matter was present and was pressing upon the cord and it was decided to attempt to relieve this pressure by operation.

On Nov. 8th, under chloroform, a transverse incision three inches long was made commencing at the right of the sixth dorsal spinous process, slanting slightly downwards and extending to the right. The muscles exposed were cut through until the right transverse process of the eighth vertebra was laid bare; this was cut through at its base and removed. The periosteum of the eighth rib was incised from the head to the tuberosity and carefully stripped from the rib which was divided and its head and neck were removed. Whilst this was being done thick curdy pus welled up and it was found that the head of the rib was carious and detached from the body of the eighth vertebra, which was practically destroyed. A sharp spoon was introduced and all the soft bone was carefully scraped away as far as possible, care being taken not to wound the dura mater or the pleura. A drainage-tube was inserted and iodoform emulsion containing 1 in 40 carbolic acid was injected and the cavity was lightly packed with iodoform gauze. The patient was placed on a mattress made in sections to facilitate dressing and a seven-pound extension was applied to each leg. On the day following there was a slight return of sensation in the right foot and on the third day there was voluntary movement in the great toe of each foot. On the 29th there had been steady improvement from day to day, sensation was perfect and the legs could be moved freely, but there was still incontinence of urine and fæces. On Dec. 27th the improvement had continued. He could now lift each leg easily from the bed and there was control over the bladder and rectum. The sores on the heels had rapidly healed. The girdle pain had disappeared. On Jan. 8th, 1903, the drainage-tube was discontinued; since the operation the wound had been dressed every other day and the emulsion injected. On the 28th the wound was quite healed. On Feb 4th the patient was fitted with a steel spinal support consisting of a pelvic band and two dorsal rods an inch apart, with shoulder straps and plates so arranged as to support the spine where it was defective. On the 15th he was allowed to sit up for an hour daily, wearing the apparatus. The Babinski phenomenon had disappeared. On March 13th he was able to walk well.

*Remarks by* Dr. BROOK.—On first seeing the case it was difficult to decide whether the paraplegia was due to compression of the spinal cord or to pachymeningitis, as there was no sign of any collection of pus. The fact that there was no tenderness over the prominent spinous processes excluded meningitis, and the skiagram, which showed a blurring at the site of the disease, was suggestive of the presence of caseous deposit and inclined me to think that I had to deal with a case of pressure paraplegia due to tuberculous matter outside the dura mater. It was suggested that laminectomy might give relief; this, however, would have deprived the spinal column of the support of the only part which at the level of the disease was still sound. I therefore tried what could be done by rest and extension but without any benefit, and I then decided to endeavour to reach the disease from the side. There was no great difficulty about the operation which was rendered all the easier by the head of the rib being detached from the vertebra. Care had to be taken not to damage the spinal cord on the one hand or the pleura on the other. It is interesting to note that although sensation began to return within 24 hours and the ability to move within 48 hours it was not until six weeks had elapsed that power over the bladder and rectum was regained. The disappearance of the Babinski phenomenon is also of interest. I have to thank Dr. P. Kinmont and Mr. J. T. Crowe, the house surgeons, for their care and interest in the case and my partner, Dr. A. Stanley Green, for the very excellent skiagrams which he obtained.

## BRISTOL ROYAL INFIRMARY.

A CASE OF TRIPLE TELESCOPIC INTUSSUSCEPTION ORIGINATING IN MECKEL'S DIVERTICULUM.

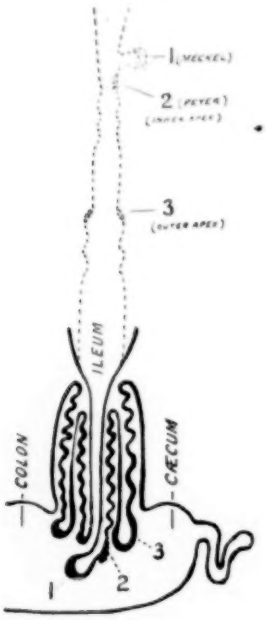
(Under the care of Mr. T. CARWARDINE.)

A VERY collapsed child, aged 14 months, was admitted under the care of Mr. Carwardine in February, 1903, for intussusception of two days' duration although no tumour could be felt on abdominal examination. A rapid operation was performed and the small gut was eventrated. An intussusception of the lower ileum was found which had just entered the colon. This was reduced with some slight difficulty and then another invagination was found within the first and on reducing the latter an inverted Meckel's diverticulum finally appeared, dark and swollen, and was reduced. There were thus three invaginations, one within the other, like a telescope when closed. The bowel was emptied and nutriment was injected but the child never recovered from the collapse.

*Necropsy.*—At the post-mortem examination a thickened

dark Meckel's diverticulum was seen about 15 inches from the ileo-cæcal valve and a gangrenous Peyer's patch half an inch lower down. Still lower was a large patch of early gangrene.

*Remarks by* Mr. CARWARDINE.—As the condition must be extremely rare the illustration may be of service to elucidate




Diagrammatic representation of intussusception.

what may be termed a "telescopic" invagination. The dotted lines represent the parts when reduced and the numerals refer to corresponding points.

# Medical Societies.

## PATHOLOGICAL SOCIETY OF LONDON.

*Discussion on Arterial Sclerosis.*

A MEETING of this society was held on Feb. 16th, Dr. F. W. PAVY, Vice-President, being in the chair.

Dr. T. D. SAVILL opened the discussion on Arterial Sclerosis by reading a paper on Arterial Hypermyotrophy and other Morbid Changes which occur in the Muscular Tunic of the Arteries. He said that arterial sclerosis might be defined as a chronic, generalised thickening, condensation, or degeneration of the arterial walls, in which the walls were hard or less elastic than normal and the lumen remained unduly patent after death. Three kinds were recognised—intimal, medial, and adventitial sclerosis—and these should be studied separately. Adventitial and intimal sclerosis were, in Dr. Savill's view, very often secondary to disease of the muscular coat. Atheroma (a patchy fibro-cellular infiltration of the intima) must be regarded as totally distinct from intimal sclerosis. A large number of cases had been examined at the Paddington Infirmary and clinical and pathological details of 30 cases were submitted which presented circulatory symptoms during life and in which the arterial system was carefully studied, with the naked eye and microscopically, after death. The methods adopted were described. Measurements were made with a micrometer eye-piece. The paper dealt almost exclusively with the changes which took place in the muscular tunic. The importance of the muscular coat was first emphasised on histological, physiological, and pathological grounds. The muscular tissue of the arteries constituted the parenchyma or proper tissue of the arterial system, and on its performing its correct function the healthy action of the cardio-vascular and many other systems depended. In relation to the pathological importance of the muscular coat the case of a woman who died at the age of 100 years was described and sections of her arteries and organs were exhibited in illustration of the following conclusions at which Dr. Savill had arrived after examining the bodies of upwards of 400 persons who died at 60 years of age and upwards: (1) that extensive patchy atheroma was consistent with extreme longevity and with the total absence of symptoms or vascular complications; and (2) that the same remark applied to marked generalised intimal and adventitial sclerosis, provided (*a*) that the tunica media was relatively free from hypertrophy or disease and (*b*) that the balance between the heart and arteries was not materially disturbed. On the other hand, moderate disease of the muscular tunic was a serious potential evil. Morbid changes in the muscular tunic of the arteries might be grouped as follows:—1. Atrophy was not common but had been found in some wasting diseases. 2. Hypertrophy was more frequent and was not uncommon after middle life, though the measurements were so refined that it was difficult to be positive. 3 Cloudy swelling in the muscular fibres was a change which could not always be revealed by the stains in ordinary use, but with acid orcein the slightest degree might be demonstrated. Acid orcein was a most valuable stain; by its proclivity for elastic tissue it also defined both the internal and the external boundaries of the tunica media in complex specimens. 4. Granular degeneration was frequently associated with cloudy swelling. All these four changes had a generalised distribution in the arterial system, though often more marked in one area (in the lower extremities, for example) than another. (5) Necrosis and (6) calcification both occurred as spots or foci of various sizes. Calcification might take the form of plates or of transverse spicules. Transformation of the tunica media into fibrous tissue was never met with in specimens adequately prepared and stained. Arterial hypermyotrophy was a term used by Dr. Savill in 1891 and again in 1897 to describe a generalised increased thickness of the muscular tunic of the arteries due to an increased volume, with or without numerical increase, of the individual muscular fibres. It was to be regarded as primarily a genuine muscular hypertrophy, just as an increased thickness in the cardiac wall in like circumstances was so regarded. The fact of degeneration having commenced by the time a case reached the post-mortem room did not negative the existence of hypertrophy. It was very often antecedent to medial degeneration. Clinically arterial hypermyotrophy constituted a distinct pathological condition of prolonged course, capable of recognition during life by careful investigation sometimes but not necessarily associated with chronic renal disease and constituting in itself one of the main pathological conditions on which cerebral and other hæmorrhages depended. The 30 cases which form the chief basis of this communication were divided into two groups. In Group A (17 cases) arterial hypermyotrophy was relatively uncomplicated by other arterial disease and these represented some of the earlier phases of the disorder. Group B (13 cases) were more or less complicated with intimal and adventitial sclerosis and degenerations; these probably represented the final stage. Microscopical sections of the arteries and arterioles were examined, measured, and compared with normal specimens. Typical cases were described. One case was met with while searching for a normal standard. Another was that of a man, aged 56 years, who exhibited numerous circulatory symptoms during life and who died from cerebral hæmorrhage. The urine, kidneys, and other organs were normal, but the heart and arteries presented hypermyotrophy. The average increase of the tunica media amounted to $\frac{5\cdot}{2\cdot5}$ of normal in the lower extremities, $\frac{\cdot1}{2\cdot5}$ of normal in the abdomen and upper extremities, and $\frac{2\cdot6}{2\cdot5}$ of normal in the cerebral arteries. The tunica intima was practically normal. The tunica adventitia was very slightly increased. In the 17 cases in Group A measurements showed an average increase in the media amounting to about 50 per cent., the greatest being $\frac{1}{3}$ and the smallest $\frac{1}{7}$. Among the causes of arterial hypermyotrophy, its relationship to chronic renal disease was first discussed. That it resulted from chronic renal disease was admitted. But that it might also occur independently of renal disease

was evidenced by the fact that of 30 cases submitted chronic renal disease existed in only four of Group A and in five of Group B; the remaining 21 presented no urinary changes during life or evidence of renal disease after death. Objection was taken to the term "chronic Bright's disease" being applied to a generalised condition, consisting of high tension and various circulatory and nutritional defects with fibrosis of organs, unless there were definite evidences of chronic renal disease during life and after death. It was suggested that such a generalised condition was in reality a condition described clinically as senile hyperpiesis by Professor Clifford Allbutt, or anatomically as arterial hypermyotrophy, with their concomitant circulatory and nutritional defects. 2. Hypertrophy of the heart existed in all of the 17 cases in Group A and in all but two of the 13 cases in Group B. The average weight of the heart in Group A was 13·9 ounces and in Group B 12·5 ounces. It might be regarded either as a cause or as a result of arterial hypermyotrophy, or as a product of a cause common to both. 3 High blood pressure was observed in all cases of arterial hypermyotrophy seen during life before a final stage supervened. The causes of high arterial tension could generally be revealed in their history and evidently played a leading rôle in the causation of arterial hypermyotrophy. Heredity, age, and other causes were also discussed. The consequences of arterial hypermyotrophy somewhat resembled those of high tension. Among the most serious was cerebral hæmorrhage, which occurred in four out of 17 cases in Group A. Hæmorrhages occurred in other situations in spite of the thickened arteries. A table of the causes of death was submitted.

Professor CLIFFORD ALLBUTT, after alluding to the discussion which had occurred on arterio-sclerosis between Gull and Sutton on the one hand and George Johnson on the other, said that from clinical observation he recognised three forms of arterio-sclerosis, which might be superficially alike but were very different in nature and causation. These three forms were: (1) toxic, that was the effect of lead and certain of the infectious diseases, such as syphilis, and of diabetes; (2) involutionary, that was senile decay, a change which might appear before the age of 70 years; and (3) secondary, the effect of arterial hyperpiesis, the form in which the muscular coat of the artery was hypertrophied. The forms 1 and 2 were not necessarily attended by a rise of arterial pressure, but form 3 essentially depended on hyperpiesis for its initiation. The forms 2 and 3 might concur in the same patient, but this was not the rule. In the "involutionary" form calcification was more prone to occur and the disease was more disposed to attack all the coats of an artery than in hyperpiesis. In form 2 the heart was not hypertrophied or dilated, or only in the slighter degrees; it was often in fairly good working order and death did not depend upon strain of the heart. It was on group 3 that the discussion mainly turned and he stated that he was of opinion that the first apparent factor was a rise of arterial pressure and that the arterial disease was a mechanical consequence of the sustained hyperpiesis instead of the converse as was generally believed. This factor probably depended in its turn upon some alteration of the blood and the alteration of the blood again upon some more or less specific perversion of metabolism. The chemistry of the body was perverted, the blood was altered, and whether by this alteration the fluid became more viscous and so traversed its channels more reluctantly or received some quality irritating to the vessels which by their responsive contraction hindered its flow was doubtful. From this abnormal resistance in the periphery the pressure rose, the vessels became dilated, and the dilatation was counteracted by hypertrophy. By this means a balance was brought about and circulation was carried on though with excessive expenditure in labour. He had noticed that even in old people arterial hyperpiesis might establish itself and yet be permanently reduced by appropriate means. The production of the condition depended upon a sedentary life and high feeding, but, on the other hand, it occurred in patients who were perfectly temperate. He believed, however, that repletion, relative or positive, was the cause of the majority of cases. He believed that arterial hyperpiesis had a definite train of symptoms and formed a distinct clinical type.

Dr. J. F. H. BROADBENT held that under the term "arterio-sclerosis" must be included degenerative lesions of the aorta comprised under "atheroma," as well as those of the smaller vessels. It was scarcely possible to consider them apart as the two conditions were etiologically and pathologically closely allied. In studying a case of vascular degeneration it was advisable to examine carefully macroscopically and microscopically the condition of the aorta, cerebral vessels, kidney, coronary arteries of the heart, and one of the vessels of the extremities—e.g., the radial—as the incidence of the lesion varied greatly. On these lines he had examined the vascular changes in some 16 cases of cerebral hæmorrhage, which was one of the most common accidents associated with arterio-sclerosis. In two instances the patients were 80 years of age and the hæmorrhage was the result of senile degeneration of the vessels. Of the remaining 14 seven were associated with granular kidney, and seven with a type of kidney in which the most characteristic changes were thickening and hyaline degeneration of the inner coat of the vessels; the kidneys were of about normal size, the capsule stripped leaving a smooth surface, and the cortex was not appreciably diminished. In all these 14 cases the heart and middle coat of the radial artery were greatly hypertrophied but the latter showed no signs of degeneration. The cerebral vessels were dilated, thin, and hyaline, or were studded with small white patches which microscopical examination showed to consist of localised thickening and degeneration of the sub-endothelial tissue over which the muscular coat could be traced, though thin and atrophied in some instances. In four cases there was advanced atheroma of the aorta; in the remainder there were only slight degenerative changes immediately above the aortic valves or no appreciable naked-eye change. The condition of the coronary arteries was not investigated in all the cases, but in two there was advanced degeneration and in four they appeared healthy. The main clinical characteristics were high arterial tension, hypertrophy of the heart, and in several instances, but not all, albuminuria; six of the patients, however, were taken in comatose and died shortly after admission, so that the clinical history was imperfect. The high tension was presumably due to increased peripheral resistance from a tonic contraction of the arterioles and capillaries induced by some toxic substance in the circulation. In granular kidney the toxin was the result of imperfect elimination by the diseased organ. In the second group of cases high arterial tension probably antedated by many years disease of the kidney and the toxins which induced hypertonicity of the peripheral arterioles also gave rise to the thickening and degenerative changes in the renal vessels. They might be introduced from without—e.g., lead—or they might be generated in the body and be due to imperfect metabolism; in the latter case heredity and a gouty diathesis were important factors. The increased peripheral resistance induced hypertrophy of the heart and muscular coat of the systemic arteries which was not to be regarded as a disease but as a response to increased work. The cerebral vessels, however, being poorly provided with muscular tissue became dilated under the constant and increasing pressure; their nutrition was interfered with, thickening and degenerative changes occurred in the sub-endothelial tissue, the muscular coat became atrophied over the bulging necrotic tissue, and rupture frequently occurred. This type of degeneration, common in the aorta and cerebral vessels, was not met with in the kidney in which thickening and hyaline degeneration of the intima and adventitia and hyaline degeneration of the glomeruli were the most characteristic lesions. From the analogy of amyloid degeneration which was induced by some prolonged toxæmia and to which hyaline degeneration was akin he thought it probable that toxic products in the circulation were the predominant factors in vascular degenerations in the kidney, while high arterial tension was mainly responsible for lesions in the cerebral vessels. In regard to degenerative changes in the aorta with which aneurysm was so frequently associated, intermittent strain associated with arduous occupations was doubtless in many instances responsible, as Professor Clifford Allbutt had originally suggested. Syphilis was, however, an important etiological factor in a large number of cases. Clinically, from the history of the case, the age and occupation of the patient, the condition of the vessels, and the presence or absence of high arterial tension, it was possible in the majority of cases to arrive at a diagnosis as to the cause of the degenerations. Post mortem it was not easy from a macroscopical examination to form any certain conclusion. Microscopically in a certain number of cases he had found endarteritis obliterans of the vasa vasorum which had caused localised areas of necrosis in the vessel wall from impaired nutrition. In two of these cases there was a definite history of syphilis and he thought that by careful microscopical examination a differential diagnosis between degenerative lesions due to syphilis and those due to strain or other causes might be made on these grounds. Dr. F. W. Mott, in his

article in Allbutt's "System of Medicine," had called attention to endarteritis obliterans of the vasa vasorum in syphilis. Possibly other toxins might act in this way; it was common to find patches of degeneration in the aorta of young children who had died from an acute illness such as pneumonia or septicæmia, or from tuberculosis or diabetes, and he thought that in many instances such localised degenerations might be the origin of degenerative lesions leading to aneurysm in later life.

Dr. F. PARKES WEBER observed that admitting the justness of Dr. Savill's contention that the unstriped muscle ought to be considered the parenchymatous tissue of the arterial walls in the same sense that cardiac muscle was termed the parenchymatous tissue of the heart walls, he (Dr. Weber) thought it followed that arterial hypermyotrophy bore the same relation to arterio-sclerosis that cardiac hypermyotrophy bore to cardio-sclerosis. The discussion that evening had centred rather on arterial hypermyotrophy than on arterio-sclerosis. Dr. Weber thought that in most cases the hypertrophy in the muscular part of the arterial walls served a useful (that was a compensatory) purpose and illustrated the laws of action and reaction which governed vital phenomena in general. Apparent exceptions were, however, to be found in cardiac or arterial hypermyotrophy of nervous origin, such as the cardiac hypermyotrophy sometimes met with in persistent tachycardia without valvular disease (some cases of Graves's disease) and the arterial hypermyotrophy sometimes met with in limbs affected by conditions allied to erythromelalgia and Raynaud's symptom complex. These apparent exceptions to the general rule of vital reaction doubtless arose from portions of the nervous system (concerned in the reactions in question) themselves being abnormal. As a possible, though very rare, cause of arterial hypermyotrophy Dr. Weber instanced a condition on which Professor Osler and others had recently written, in which the blood was about twice as rich as it normally ought to be in red corpuscles. Such an extreme increase in the proportion of corpuscles must necessarily render the passage of the blood through the arterioles more difficult.

Dr. PAVY said that the two important factors in the production of arterio-sclerosis were some toxic agent and renal disease. Cases did, however, occur which in their superficial aspect presented all the characters of Bright's disease, but on examination of the urine there was no albumin or cast. He mentioned the case of a woman who at first suffered from attacks of headache, vomiting, and transient aphasia from which she rapidly recovered. At this time the urine contained no albumin and no casts. Some years later the attacks of headache recurred and the arterial tension became greater, and at a later period granular casts appeared in the urine and at a still later time albumin. The cardio-vascular symptoms preceded the renal disease. It was probable that a defective metabolism gave rise to a toxic agent which produced the vascular change. He mentioned a case in illustration of the fact and said that it was of great importance to diminish the quantity of nitrogenous food in such cases.

## CLINICAL SOCIETY OF LONDON.

*Fibroid and Calculous Disease of the Pancreas with Jaundice and Diabetes.—Two Cases of Malignant Anæmia associated with Caries of the Teeth and Suppuration of the Upper Jaw.—Operation for Ankylosis of the Temporo-maxillary Joint.—Two Cases of Tuberculous Disease of the Thyroid.*

A MEETING of this society was held on Feb. 12th, Dr. FREDERICK TAYLOR, the President, being in the chair.

Dr. SIDNEY P. PHILLIPS reported a case of Fibroid Disease and Calculi of the Pancreas with Jaundice and Diabetes. The patient was a married woman aged 26 years, who about Christmas time, 1901, began to suffer with epigastric pain. In February, 1902, jaundice appeared with absence of bile from the stools. There was no history of biliary colic. An exploratory operation was performed at St. Mary's Hospital by Mr. Edmund Owen[1] on April 3rd, when a great enlargement, judged to be non-cancerous, of the pancreas was found. On June 14th 8 per cent. of sugar was present in the urine and six months later the jaundice entirely disappeared but the diabetic symptoms progressed. On Jan. 25th, 1903, she was attended at her home by a medical man for diabetic coma from which she died on the following day. A partial necropsy was obtained. The pancreas was much enlarged and presented a considerable degree of fibroid change throughout, with numerous small calculi of varying size, so that sections of the organ were gritty. Microscopically there were almost complete replacement of pancreatic tissue by fibrosis and destruction of the islands of Langerhans. The occurrence of the jaundice was explained by obstruction of the common opening into the duodenum of the pancreatic and bile ducts. The glycosuria was of the type usual in pancreatic diabetes. The diagnosis of pancreatic disease in this case was not assisted by the administration of salol.—Dr. NORMAN DALTON inquired whether the pancreas was smaller at the necropsy than at the time of operation and pointed out that its diminution in size was probably analogous to that of a cirrhotic liver.—Mr. LEONARD A. BIDWELL remarked that the gall-bladder was generally distended in cases of chronic pancreatitis. He thought that the gall-bladder should have been explored in this case. He had operated upon four cases of this affection and in none of them was glycosuria observed after the operation. The cause of the jaundice in the present case might have been due to a calculus which had been originally impacted in the ampulla of Vater.—Dr. WILLIAM PASTEUR remarked on the view that was held that obstruction of the pancreatic duct led to fibrosis of the pancreas and referred to a case in illustration of occlusion of the pancreatic duct by scar tissue in the duct. All the ducts in the pancreas itself were dilated but there was no fibrosis in this instance.—Dr. PHILLIPS replied.

Dr. DALTON narrated two cases of Malignant Anæmia associated with Caries of the Teeth and Suppuration of the Upper Jaw. The first case was that of a man, aged 21 years, suffering from debility, pallor, anæmic bruits, epistaxis and other hæmorrhages, and vomiting. The disease lasted only eight months and there was no necropsy. There was no enlargement of the spleen or lymphatic glands. The interest centred in the urine, the suppurative lesions, and the blood. The urine was never high-coloured. The teeth were carious and there was an alveolar abscess which after incision left a sinus in the hard palate. Otorrhœa was also present. The blood showed progressive oligocythæmia, the red discs falling from 1,200,000 per cubic millimetre on admission to 393,720 three months later. The hæmoglobin was also diminished and there was marked leucopenia, the lymphocytes being in excess of the polynuclear cells. The second case was that of a girl, aged 17 years, who had lived in extreme poverty. She had been ailing for some time but the illness only became acute three weeks before she was admitted to King's College Hospital, where she died five days later. The urine was pale, the teeth were carious, and there was an abscess in the upper jaw from which pus was constantly oozing. The blood only contained 816,000 red cells per cubic millimetre and 17 per cent. of hæmoglobin. The leucocytes numbered 3500 per cubic millimetre. At the necropsy there were subserous and submucous hæmorrhages. There was no free iron in the liver and the red marrow was fatty. In neither case could surgical treatment be undertaken on account of the tendency to hæmorrhage. Dr. Pasteur had described an exactly similar case but there was no suppurative lesion.—Dr. WILLIAM HUNTER agreed that the cases corresponded in a remarkable way to those which he had described as "septic anæmia" which had been previously included under the title of "pernicious anæmia," but were distinguished therefrom by the absence of evidence of the hæmolytic changes in the urine, the presence of a low type of pyrexia, the absence of the bone marrow changes generally seen in true Addisonian anæmia, and the grave prognosis attached thereto unless the focus of suppuration could be removed.—Dr. PASTEUR referred to the case which he had brought before the society last November in which hæmolysis was excessive but there was no suppurative lesion. He therefore concluded that for the present his case must stand alone.—Mr. LEONARD S. DUDGEON inquired if streptococci were present in the blood previously to the injection of antistreptococcic serum.—Dr. F. PARKES WEBER understood Dr. Dalton to say that something more was necessary for the production of anæmia than sepsis alone.—Dr. DALTON replied that he considered that persons with carious teeth were always in danger because at any moment an unknown factor might

[1] Brit. Med. Jour., Oct. 25th, 1902.

supervene and convert a condition of simple ill-health into a malignant form of anæmia which was rapidly fatal. He thought that Dr. Hunter's phrase of "septic anæmia" was a little unfortunate as tending to cause some confusion with the true Addisonian anæmia in which a special form of sepsis occurred on the tongue.

Mr. J. JACKSON CLARKE described a case of Excision of the Neck of the Lower Jaw for Temporo-maxillary Ankylosis. The patient was a woman, aged 35 years, on whom four years ago he had performed this operation on both sides for ankylosis following a general infective arthritis, probably gonorrhœal in origin. She could now separate the edges of the incisor teeth three-quarters of an inch and could masticate with comfort.—Mr. T. H. OPENSHAW referred to cases of his own in which he had resected both condyles with good results.

Mr. OPENSHAW exhibited three cases of Fracture of the Bones of the Leg treated by immobilisation in Hoefftcke's apparatus and a modified Hessing's splint case appliance.

Mr. EDRED M. CORNER read notes of two cases of Primary and Secondary Tuberculosis of the Thyroid Gland. In the first case, that of a girl, aged nine years, the condition was found during life, an abscess in the right lobe and a sinus leading to a diseased left lobe being present. The wounds refused to heal until thyroid extract was administered. The child died seven months later from general tuberculosis. The second case was discovered post mortem as a caseous mass in the right lobe of the thyroid in a woman who had died from pulmonary thrombosis and phthisis. The condition was really a clinical curiosity, as localised tuberculous deposits in the gland were extremely rare.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

*Functional Albuminuria.*

A MEETING of this society was held on Feb. 5th, Dr SEYMOUR TAYLOR the President, being in the chair.

Dr. SAMUEL WEST read a paper on Some Points in Functional Albuminuria. Discussing the various names by which the condition had been described, he expressed preference for that of albuminuria in the apparently healthy because it represented the facts that albumin was present in the urine and that the albuminuric patient was in other respects apparently healthy. This name also suggested the practical difficulty which arose in every case—viz., the difficulty of being certain that the person was actually and not only apparently healthy. Although by delicate and repeated tests the presence of albumin might be demonstrated in the urine of practically everyone, when shown by ordinary clinical methods of examination albuminuria could never be regarded as physiological but always as evidence of some abnormal or pathological condition. Functional or physiological albuminuria might therefore be described as albuminuria for which the cause was not obvious. The diagnosis was arrived at by the method of exclusion and it was impossible to be certain that all the possible causes had been eliminated. Many of the known facts about functional albuminuria were sufficiently indicated by the various names given to it, such as occasional, intermittent, remittent, cyclical, postural dietetic, and the like. The importance and significance of albuminuria varied with the age. It occurred frequently in infants and young children, in which cases it was generally of little significance, though further observation was much needed on this point. The largest number of observations was concerned with the next age group—viz., that of boys at school, in whom the average frequency seemed to be about 20 per cent. The boys forming this group fell into two classes—the one full-blooded, florid vigorous lads with good or even high pulse tension, the other pale, flabby, ill-conditioned, and with low pulse tension. These groups probably presented differences in pathology and prognosis and demanded different treatment. In many the albuminuria completely disappeared, in others it persisted for many years without apparent loss of health, while in a few ill-health and evidence of kidney disease supervened. In young adults with albuminuria further important questions arose in connexion with life assurance and appointments in public offices or business houses. It was at present impossible to determine in any given case whether the albuminuria was transient or likely to persist with evidence of kidney lesion. If differentiation were ever possible it would be largely due to the work of the family medical adviser who had special opportunities for observation in such cases. After 30 years of age the frequency of albuminuria increased with every year of life, together with an almost *pari passu* rise in the gravity of the condition. In granular kidney all the features of functional albuminuria might be produced, but in all well marked cases other signs of the kidney lesion would be found, chief among these being arterial thickening. If in any given case there was general arterio-sclerosis the conclusion was justified that, whatever the cause of disease might be, the patient was not really healthy and could not be suffering from physiological albuminuria. The general conclusion was that albuminuria was never truly physiological at all, but always pathological, though not necessarily renal.

The PRESIDENT considered all such cases, provided that catheter specimens of the urine contained albumin, to be pathological, but urged the necessity for careful microscopical examination to supplement this evidence. The presence of tube casts, free blood, or an excess of desquamated renal epithelium rendered the diagnosis of renal disease imperative. If signs of increased tension in the renal pulse, accentuation of the aortic second sound, and displacement downwards and outwards of the heart's apex beat were present, although the albuminuria might be fugitive, all such cases must be regarded as coming under the category of Bright's disease.

Dr. G. A. SUTHERLAND believed the postural or orthostatic variety to be a definite form of functional albuminuria. In these cases albumin appeared in the urine soon after the patient assumed the erect position in the morning and decreased in amount as the day went on. The patients were most frequently young adolescents who exhibited accompanying symptoms which were very definite, chiefly of the nature of general vaso-motor disturbance and which might be best summed up under the term "neurasthenia." There were none of the signs or symptoms of nephritic diseases in these cases. All the classical symptoms of adult neurasthenia were reproduced in these cases and he had found from experience that treatment of this underlying condition was productive of the best results.

Dr. E. A. SAUNDERS agreed with the President as to the necessity for microscopical examination of the urine in every case. The presence of a few hyaline casts he did not consider of greater clinical significance than the occurrence of albumin itself, but if many casts were present, especially if these were of the granular variety, they might be taken as evidence of chronic kidney disease. In estimating the prognosis in cases of albuminuria in the apparently healthy he attached great importance to the age of the patient and the amount of the albumin. After 30 years of age the gravity of the condition increased with every year of life and, speaking generally, the larger the amount of albumin present the more serious the prognosis became.

HARVEIAN SOCIETY OF LONDON.—A meeting was held on Feb. 11th, Dr. C. Theodore Williams, President, being in the chair.—Mr. Edmund Owen read a paper on Appendix Abscess in the Recto-Vesical Pouch. He advocated treatment by abdominal section in preference to drainage by the rectum or vagina, as by the latter method he feared fistula would be a very probable sequela and the duration of recovery would be tedious. Mention was made of vesical symptoms—frequency of micturition and pain—occurring in the course of a case which formed the basis of the paper. Mr. Owen preferred drainage by means of a tube.—Mr. H. L. Barnard said that Mr. Owen's objections to drainage of pelvic appendix abscess by the rectum or the vagina were theoretical. In more than ten cases so drained Mr. Barnard could state that none of those ill-effects which Mr. Owen referred to had followed. The drainage of pyosalpinx through the vagina was not a true analogy, as experience also proved. Indeed, Mr. Barnard still maintained that when an abscess was strictly localised in the pelvis it should be opened by the rectum or the vagina. The surgeon could tell that it was so restricted by feeling a tense round mass covered by the œdematous mucous membrane of the anterior rectal wall together with absence of fulness or tenderness in the iliac fossæ.—Mr. G. Lenthal Cheatle stated that he had seen three cases of abscess in connexion with appendicitis in which the pus had extended to the upper part of the recto-vesical pouch and had given rise to pain with frequency and difficulty of

micturition. In another case in which there was too much abdominal distension to feel anything in the right iliac fossa, but the patient had vesical symptoms, he diagnosed a similar condition, and he now looked upon this set of symptoms as indicating immediate operation in cases of spread towards the recto-vesical pouch. He had only once felt the swelling per rectum and then the abscess was very large. He considered abdominal section the better treatment.—Mr. W. McAdam Eccles said he was accustomed to make a distinction in the question of treatment of localised pelvic abscess in the two sexes. In males he attacked them suprapubically; in females he cleared up the diagnosis by median incision, dealt with the affected organ, and drained per vaginam, frequently closing the anterior abdominal wound.—Mr W. Spencer believed the best time to remove an appendix was in the first 24 hours and advocated drainage by gauze in preference to tubes; he considered it wise always to remove the appendix in cases of suppuration as relapse or trouble frequently followed its omission. He hoped drainage by the rectum or vagina would not be followed.—Mr. F. Jaffrey entirely concurred with Mr. Owen as to the inadvisability of draining by the rectum or vagina.—Mr. Owen replied.—Mr E. W. Roughton read a paper on a case of Intestinal Obstruction with Gangrene of the Cæcum. An umbilical hernia existed but was soft, painless, and gave an impulse; it was therefore not the source of the symptoms. A median incision was made and an enormously distended cæcum was seen. During manipulation the cæcum burst and flooded the operation area with fæces, but the peritoneum was protected by gauze packing and a Paul's tube was tied in. Later Mr. Legg removed a cancerous growth from the sigmoid flexure, the portion removed including four inches of the gut and a wedge of the mesentery. End-to-end suture was employed, the first layer through all the coats and the second through the sero-muscular coats, and the parietal wound was closed. The colotomy wound was plugged with a sponge and the skin was sutured closely over it during the operation. The patient did well.—Mr. E. P. Paton discussed two cases of partial hernia which he had recently treated, in one of which, although a small portion of the gut was tightly constricted and was sloughing through, the symptoms were purely local; in another case the hernia was associated with local symptoms which rather resembled those of perforated gastric ulcer, thus showing how sloughing of the gut often gave rise to anomalous symptoms.—Mr. Roughton replied.

DERMATOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on Feb. 10th, Mr. Malcolm A. Morris being in the chair.—Dr. S. E. Dore showed: 1. A woman, aged 30 years, who had suffered from an Annular and Gyrate Erythematous Eruption coming out in the winter and lasting for about six months for the last seven years. The eruption when shown consisted of some small patches of about the size of a sixpence and larger rings with hard œdematous edges. The history was that the individual lesions had been present for about three months. 2. A man, aged 65 years, with a Symmetrical Curtain-like Eruption affecting the face and chin and similar patches on the extensor surfaces of the elbows and scalp. The eruption consisted of a very superficial infiltration of the skin with granulomatous tissue and was generally considered to be an unusual case of lupus vulgaris.—Dr. H. G. Adamson showed a little girl, aged seven years, in whom had appeared seven patches of Disseminated Lupus scattered over the face, trunk, and extremities. The eruption occurred after an attack of measles.—Dr. T. Colcott Fox showed a man, aged 30 years, suffering from a crop of Scattered Papules over the Face. The lesions had been present for four months and individually resembled lupus nodules. He believed them to be instances of the acneiform tuberculide.—Dr. E. G. Graham Little showed: 1. A case of Lupus which had been treated without very great success by means of the light treatment and had since undergone a course of the tuberculin R. The disease showed a very marked improvement as the result, many of the nodules having quite disappeared. 2. A case of Obstinate Sycosis of several years' duration which had been treated with antistaphylococcic injections by means of Wright's method. Although the case had only had four injections the result was already a great improvement.—Dr. W. T. Freeman showed a man, aged 42 years, who had had some large Infiltrated Patches on the Scrotum for fifteen years and many Large Papules distributed over the forehead, cheeks, chin, and scalp for five years. The nodules were as large as peas and extremely like syphilis in appearance but the peculiar history threw doubt upon this. The case was shown for diagnosis and no very decided opinion was expressed.—Mr. Willmott H. Evans showed a case of Thickening of all the Tissues round the Eyes and Forehead in a man who had been in South Africa. The condition had been progressively extending for two years and he thought it was due to chronic streptococcic infection.—Dr. H. Radcliffe Crocker showed a case of Multiple Lupus Vulgaris in which the lesions had all come out in a week ten years ago and had since progressed to form large patches.—Dr. A. Whitfield showed a case of Herpes Gestationis of two months' duration in a woman who was three months pregnant for the first time.

ROYAL MEDICAL SOCIETY OF EDINBURGH.—A meeting of this society was held on Feb. 5th, Dr. H. D. Shepherd being in the chair.—Dr. D. M. Callender described the case of a soldier who had died in hospital a few hours after a Fall from a Height of about 50 feet. During life the bony lesions discoverable were a compound fracture of the lower jaw and a dislocation of the os magnum of the left carpus. The patient suffered from hæmaturia but no fracture of the pelvic girdle could be made out. A Sprengel pump was used and at first only drew off blood but later clear urine was drawn off. At the post-mortem examination, from which Dr. Callender showed specimens, a fracture of the horizontal ramus of the left pubic bone was found. This had given rise to a rupture of the bladder.—Dr. L. C. Peel Ritchie read a paper on the Bioskowski Joseph Bacillus of Syphilis. The bacillus, of which specimens were shown under the microscope, was cultivated on placental tissue. Dr. Ritchie described its characters and the appearances presented by cultures on various media.—A dissertation on the Relation of the Thyroid Gland to Connective Tissue by Dr. C. J. Shaw was read in his absence by Dr. T. B. Hamilton. Dr. Shaw described the conditions found in cretinism, myxœdema, exophthalmic goitre, and after excision of the thyroid, and discussed the theory of Dr. D. Berry Hart that improper development of the thyroid in the fœtus was the cause of hydatid mole.——A meeting of the society was held on Feb. 12th, Dr. Shepherd being in the chair.—Dr. C. M. Campbell read notes of a case of Paralysis Agitans in a patient aged 35 years. The mask-like character of the face was pronounced. A peculiarity of the case was that the symptoms still remained unilateral, although the condition had been present for over three years. Dr. Campbell also described the case of a girl, aged 18 years, who had had a series of fits culminating in left-sided hemiplegia. Optic neuritis was also present. Under the diagnosis of cerebral tumour craniotomy was performed. No tumour was found but the operation relieved intracranial tension and the patient's symptoms improved. There was a large hernia cerebri through the opening made in the skull and from this a leakage of cerebro-spinal fluid went on for several months. Any attempt to reduce the protrusion caused a recurrence of the patient's symptoms. Lumbar puncture had been tried on three occasions. This caused considerable diminution in the protruding mass but the improvement was only temporary.—Dr. Macrae Aitken read a dissertation on the Treatment of Spastic Paralysis of Infants. If the paralysed muscles were stretched, the limb put up in splints in the relaxed condition, and treated by massage for three months considerable power of movement might be recovered. The muscles must then be educated to perform various movements. Operative interference by tenotomy or tendon transplantation was often of value.—Dr. W. C. Morton read notes of cases of Sarcoma of the Femur and Appendicitis.

LARYNGOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on Feb. 5th, Mr. Charters J. Symonds, Vice-President, being in the chair.—Dr. E. S Yonge showed Professor Meyer's Apparatus for demonstrating the Laryngeal Image and Intra-laryngeal Manipulations. The apparatus was examined by most of the members of the society and proved to be extremely suitable for the purposes mentioned.—Dr. Yonge also showed Microscopical Sections of Bone and Soft Tissues from a case of early polypus. The sections showed that the subjacent bone was perfectly healthy and that there were no signs of either caries or necrosis.—Dr. H. L. Lack showed: (1) A case of Malignant Disease of the Tonsils in which he had operated with good

results; (2) a Microscopical Section of Endothelial Maxillary Antrum; (3) a Microscopical Section and patient showing Endothelial Larynx; and (4) a specimen of Large Osteoma of the Ethmoid with Nasal Polypi.—Dr. E. F. Potter showed a case of Recurrent Papilloma of the Larynx.—Dr. A. Thorne showed: (1) A case of Immobile Left Vocal Cord in a man, aged 35 years; (2) a man, aged 35 years, with Severe Paroxysmal Pain starting in the Larynx; and (3) a Tumour of the Right Side of the Larynx in a woman, aged 45 years. This latter case gave rise to a fair amount of discussion, the general opinion of the society being that the tumour was of tuberculous origin.—Mr. H. W. Carson showed a case of Laryngeal Ulceration in a phthisical patient for diagnosis.—Mr. R Lake exhibited a case of Subglottic Thickening.—Dr. J. Donelan showed a youth with Fractured Septum and a Depressed Nose improved by operation and paraffin injection.—Dr. J. D. Grant showed: 1. A case of Fixation of the Vocal Cord with extreme pain in swallowing in a female patient, aged 45 years. The question was whether it was tuberculous perichondritis. 2. A case of Chronic Œdema of the Larynx which had been shown before to the society in a middle-aged female, probably tertiary specific infiltration, and greatly improved under mercurial inunction. 3. A case of Ulceration of the Pharynx after cervical fistula and œdema of the right half of the larynx (doubtful specific perichondritis of the arytenoids) in a middle-aged woman.—Dr. G. W. Hill showed a skiagram from a man, aged 48 years, showing a Pin which had been in the larynx for four and a half years and which had been removed subsequently by lateral laryngotomy.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held on Feb. 10th at Bolingbroke Hospital, Mr. E. F. White, the President, being in the chair.—Sir Felix Semon addressed the meeting on Some Desultory Remarks on Topics of Professional Interest. He reviewed the course of medical education as conducted in this country and contrasted it with conditions existing in Germany. He observed that in educational matters generally the Germans were more thorough and more in earnest. The German boy worked from morning to night from about the age of eight years till he was 19 years of age, but it was at the expense of his individuality. The love of sport largely contributed to make the English boy what he was, but it would take some generations to infuse this into the German boy. In the medical curriculum Sir Felix Semon strongly advocated that there should be more time allotted to clinical education. There was in this country too little time spent in clinical work as compared with theoretical subjects. He suggested doing away with the theoretical departments attached to each London hospital and substituting one anatomical and physiological department for the whole of London. The English student had great advantages in possessing a large amount of clinical material. Every student should possess a thorough knowledge of all methods of precision, such as the use of the ophthalmoscope, laryngoscope, rhinoscope, and bacteriology. Sir Felix Semon criticised the manner in which medical examinations were conducted in England. He considered the tests insufficient—there was too large an element of chance by which the best men sometimes failed and the indifferent ones occasionally got through. In Germany the examinations lasted much longer and each candidate was clinically examined in every branch of medicine. He advocated one State examination instead of a number of portals to the medical profession as existed in England. All men should be put on the same footing and every man ought to get a degree. Regarding the maintenance of hospitals, Sir Felix Semon expressed the opinion that the day would come when hospitals would have to be put on the rates. He concluded his remarks by some observations on the relation of the consultant to the general practitioner.—After the address an animated discussion took place, much diversity of opinion being expressed upon the subjects brought forward.—The meeting closed with a hearty vote of thanks to Sir Felix Semon.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held at the Royal Kent Dispensary, Greenwich, on Feb. 5th, Dr. R. E. Scholefield, the President, being in the chair.—Mr. Charles Ryall read a paper on the Surgical Treatment of Appendicitis. He first drew attention to the necessity of anatomical knowledge of the part and also of the pathological changes that do, or are likely to, take place. Attaching too much importance to tenderness at McBurney's point sometimes led to errors of diagnosis, as frequently the appendix was both unduly long and moveable, and therefore the site of tenderness depended on the position of the organ at the time of the attack. Death was usually caused by too late an operation and therefore it was of primary importance to watch carefully for any signs of complications and not to wait until diffuse peritonitis had a chance of developing. In fact, it was better to operate when in doubt than to delay until more definite symptoms of complications had developed. Most cases rapidly improved eight hours after the onset and any failure of this to take place usually indicated some complication necessitating operation. The pulse was the chief sign by which to be guided and should this remain high or show signs of increasing it was to be regarded as a danger signal. Recurrence or persistence of vomiting, increase of pain, or tenderness and extension of abdominal rigidity all called for operation. Prolonged tenderness after subsidence of attack denoted imperfect recovery and such cases should be operated on. Many cases operated on in the quiescent period and even at a considerable time after the attack revealed the presence of such lesions as kinking, stricture, ulcerations, or concretions, and yet these lesions might not cause any tenderness or give evidence of their presence, although at the same time they were a grave source of danger. They had no means of detecting the presence of these lesions or how long many of them might persist, and therefore he considered the only way to insure the future safety of patients was to have the appendix removed after a first attack and this he maintained was the proper treatment.—The President, Dr. J. H. Bryant, Mr. J. P. Purvis, and Dr. J. H. Keay discussed the paper and a vote of thanks was passed to Mr. Ryall.

FORFARSHIRE MEDICAL ASSOCIATION.—A meeting of this society was held in University College, Dundee, on Feb. 5th, Dr. A. J. Duncan being in the chair.—Before the ordinary business was proceeded with sympathetic reference was made from the chair to the death since the last meeting of a former president, Dr. Samuel Lawrence of Montrose.—Professor J. A. C. Kynoch showed a mother and her child after Cæsarean Section and read notes on the case. The operation was performed before the onset of labour for pelvic contraction. The pelvis was of the small flat rickety type; its conjugate was estimated to be about three inches. The patient was sterilised by ligature and division of the Fallopian tubes. Beyond a rise of temperature to 101° F. on the second day the convalescence was absolutely satisfactory. The child was put to the breast on the sixth day and nursing was continued throughout the period of convalescence.—Mr. D. M. Greig read a paper on the Surgical Treatment of Empyema, giving the results of 84 consecutive cases of his own, 21 of which ended fatally and the remainder successfully. The operation performed must aim at safety, evacuation of the empyema, and the early closing of the cavity. The technique of the operation which he was accustomed to perform was given and in this connexion he emphasised the importance of getting rid of the fibrinous exudation at the operation. It was immaterial whether the incision was in the anterior, middle, or post-axillary line if sufficient room was obtained for evacuation of the fluid and removal of the amount of ribs required. If it were in the posterior line the difficulty arose that the patient had to be raised slightly. He usually adopted the incision in the mid-axillary line. The fluid ought to be examined microscopically, as pneumococcal empyemata undoubtedly healed more quickly than those due to streptococcal infection alone. He would operate on tuberculous patients if the physicians desired it but would not agree to aspiration. He had not found any danger from sudden evacuation of the fluid.—Mr. George Halley said that he agreed with Mr. Greig's operation in adults but questioned its routine adoption to the same extent in children. He considered that excision of portions of two ribs in all cases of empyemata in children was necessary for free drainage. In his opinion the drainage tube was then quite useful.—Professor A. M. Stalker and Dr. J. S. Y. Rogers also took part in the discussion.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—A meeting of this society was held on Feb. 8th, Dr. A. E. Maylard, the President, being in the chair.—Dr. J. M. Munro Kerr showed a Uterus which he had removed on account of malignant disease complicating a pregnancy of about eight months. The tumour was excised per vaginam in order to avoid the possibility of septic infection of the peritoneum; the uterine arteries were secured; Cæsarean section was then performed, delivering a living child; and finally the

whose uterus was extirpated through the abdominal wound.—Mr. J. Grant Andrew showed a large Single Hydronephrotic Kidney which during life gave rise to symptoms simulating those of appendicitis. The illness started somewhat suddenly with pain in the right iliac region and constipation. Fulness and tenderness in that region and the occurrence of rigor suggested abscess. At the operation, after about three weeks, it was discovered that the swelling was a hydronephrotic kidney the contents of which were somewhat purulent; it was simply drained. Acute suppression of urine followed and the patient died two days later. At the necropsy it was found that there was only one kidney which was of a large size and of a shape suggesting fusion of the two kidneys. The patient had contracted gonorrhœa a week before the onset of the illness; this was regarded as the source of infection which converted a hydronephrosis, which had previously given rise to no symptoms, into a pyonephrosis which simulated an abscess of the appendix vermiformis. Gonococci were not found in the contents of the kidney.—Dr. John Anderson showed specimens of the Prostate Gland extirpated by Mr. R. H. Parry in accordance with Freyer's method. In three specimens which were entire a portion of the membranous urethra was present and quite out to the surface of the removed masses prostatic tissue could be recognised.—Dr. Napier showed a patient suffering from Cerebral Tubercle who improved greatly after treatment by repeated lumbar puncture; he also read notes of other cases treated in a similar way.

LIVERPOOL MEDICAL INSTITUTION.—A pathological meeting of this society was held on Feb. 11th, Dr. James Barr, the President, being in the chair.—Dr. K. A. Grossmann exhibited a Congenital Subconjunctival Lipoma removed from a child, aged eight months.—Mr. W. Thelwall Thomas showed a Squamous-cell Carcinoma of the Gall-bladder and commented on its great rarity.—Dr. Nathan Raw exhibited the Kidneys of two cases showing Cystin Calculi *in situ*.—Dr. W. Carter exhibited microscopical specimens of the Crystals of Cystine.—Specimens were also shown by Dr. Hubert Armstrong.—Sir William M. Banks exhibited a Pigmented Carcinoma of the Vagina, secondary to a mammary growth removed ten years previously.—Mr. Keith W. Monsarrat read a note on the Definition of the term "Carcinoma" in which he briefly traced the sense in which the word had been used from the earliest times and endeavoured to give a precise meaning to the word as now used.—Dr. A. S. F. Grünbaum read a note on the Germinal Theory of Cancer in which he alluded to recent work on this subject. Some excellent photographs were shown of karyokinetic division.—Dr. Grünbaum also exhibited a series of micro-scopical preparations illustrating New Growths in Animals.—Mr. E. M. Stockdale, Mr. Thomas, Mr. Monsarrat, Sir William Banks, Dr. Buchanan, and Dr. Wigglesworth joined in the discussion.

PATHOLOGICAL SOCIETY OF MANCHESTER.—A meeting of this society was held on Feb. 10th, Dr. E. S. Reynolds, the President, being in the chair.—Mr. A. J. Rodocanachi mentioned a case of death from Thyroid Intoxication after Removal of a Goitre and showed the specimen.—Dr. Archibald Donald made a communication on the Pathology of so-called "Idiopathic Endometritis."—In the absence of Dr. Julius Dreschfeld Dr. Charles H. Melland gave an account of a case of Leucocythæmia which showed several unusual features. The case was one of the spleno-medullary type and the character of the blood as well as the patient's general condition was profoundly modified by active treatment with large doses of arsenic. On one occasion within three weeks the number of leucocytes fell from 253 000 in the cubic millimetre to 16 000, and a month later, after 15 minims of liquor arsenicalis had been taken three times a day for three weeks, the leucocyte count actually fell to 800 in the cubic millimetre, and at the same time the patient's general health was better than it had been for years. At a later stage he developed tuberculosis. Specimens of the blood at various stages and sections of the various organs affected with tubercle were exhibited as card specimens.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Feb. 10th, Mr. J. Paul Bush being in the chair.—Dr. H. Waldo showed a recent specimen of a Lung from a boy who had died from hæmoptysis, a caseating gland having ulcerated into both œsophagus and trachea.—Dr. J. Michell Clarke showed a patient with a Lesion of the Cauda Equina and another with a Lesion of the Lumbar Cord.—Dr. F. H. Edgeworth showed a case of Cretinism that was improving under thyroid treatment.—Dr. Walter C. Swayne showed a Calcareous Mass removed from the Broad Ligament.—Mr. G. Munro Smith showed a specimen of Scrotal Tumour with microscopic section, also a skiagraph showing numerous Foreign Bodies in the Hand.—Mr. A. W. Prichard read notes of three cases of Vesical Calculus that he had had within as many weeks and showed the stones removed.—Mr. J. Dacre related two unusual cases of Pneumothorax.—The cases, specimens, and papers were discussed by the members present.

# Reviews and Notices of Books.

*Infection and Immunity, with special reference to the Prevention of Infectious Diseases.* By GEORGE M. STERNBERG, M.D., LL.D., Surgeon-General United States Army (retired). London: John Murray. 1903. Pp. 293. Price 6*s.* net.

THIS work forms one of the Progressive Science Series edited by Mr. F. E. Beddard, F.R.S. The series is intended for the general reader and not for the specialist. It is well to remember this as otherwise the title of the work, in conjunction with the name of the author, may prove somewhat misleading. The object of the book is "to state the main facts, so far as they have been established, with reference to infection and immunity, with the practical object in view of indicating the measures necessary for the prevention of infectious diseases." We find, therefore, the subject of disinfection treated somewhat at length and no attempt is made to discuss the theories of immunity or to give any account of the results of recent investigations with regard to antitoxins, agglutinins, precipitins, and other lately discovered bodies of this type.

The book is divided into two parts. The first part treats generally of infection and disinfection and, very briefly, of natural and acquired immunity. The second part occupies more than two-thirds of the book and treats the principal infectious diseases individually. Each chapter gives, for the size of the work, a somewhat detailed historic account of successive epidemics of the disease dealt with, followed by a short account of the micro-organism associated with the malady. It is, however, to the epidemic spread of the disease and to the methods employed in checking its ravages that attention is chiefly directed. Throughout the book the information with regard to prevention is definite and practical and use is made of the reports drawn up by various sanitary authorities dealing with tuberculosis, diphtheria, and yellow fever. As might be expected from one so long associated with preventive medicine, there is a strong personal note permeating the work. Two interesting claims to priority are made. The author suggests that he enunciated the theory of phagocytosis in 1881, three years before Metchnikoff's first paper on the subject, while to Dr. W. F. A. King of Washington is attributed the theory of malarial infection by mosquito bites.

The book is well printed on good paper and includes a small number of illustrations. The work will certainly be valuable in that it gives non-medical readers accurate information both as to the means by which infectious diseases are spread and the methods which may best be adopted to prevent them from becoming epidemic.

*Asthma in Relation to the Nose, with Notes of 402 Cases.* By ALEXANDER FRANCIS, M.B., B.C. Cantab. London: Adlard and Son. 1903. Pp. 136. Price 5*s.* net.

THIS book is apparently an expansion of a paper read before the Clinical Society in 1902 and is intended as a contribution towards the investigation of a connexion between

asthma and the nose. Dr. Francis hopes to demonstrate that the connexion is something more subtle and important than a "mere causal relationship." He believes that there is a morbid connexion between the nose and the respiratory centre, which maintains the centre in such an unstable condition as to allow peripheral irritation to provoke an asthmatic reflex. On this assumption he believes that dyspnœa can be profoundly affected by intranasal treatment, even though the originating irritation of an asthmatic attack be gastric, cardiac, bronchial, renal, or nasal, or arise in any other sensory organ. The special part of the nasal mucous membrane which has this controlling influence upon the respiratory centre is, he considers, "an area situated on the septum nasi." Dr. Francis writes as an enthusiast, hence it is not surprising to find occasional inconsistencies. Thus on p. 35 he regards the remark "all my trouble comes from my digestion" as one of the most hopeful signs in forming a prognosis, while a few pages further on he says he has found that "no class of case gives better results" than "bronchial." He is not sanguine about the permanency of the relief obtainable by the removal of mucous polypi, though he acknowledges that there is "no class of cases where relief of all asthmatic symptoms can be, in some instances, more speedily and completely obtained." The treatment he advocates consists in drawing a line with a galvano-cautery point from a spot opposite to the middle turbinated body forwards and slightly downwards for a distance of rather less than half an inch. This is repeated in a week on the other side and afterwards on alternate sides at intervals of ten days or a fortnight. In his chapter on treatment he speaks well of "antimony" and of "ammonium." Presumably he means some particular compounds and it would have been more satisfactory not to leave the choice to the reader. Of the notes of the 402 cases and of the summary of an additional number of 93 cases which are quoted to support the author's view of the efficacy of his treatment it is somewhat difficult to speak. The 402 cases were all seen and treated between November, 1896, and March, 1902; the 93 cases were seen by a colleague during the author's absence from Brisbane. Asthma must be curiously prevalent in Queensland to afford such frequent opportunities for observation or else there must be some local peculiarities of nomenclature of disease.

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*Squint occurring in Children: an Essay.* By EDGAR A. BROWNE, F.R.C.S. Edin., Lecturer on Ophthalmology, University of Liverpool; assisted by EDGAR STEVENSON, M.D. Aberd., Demonstrator of Ophthalmology, University of Liverpool. London: Baillière, Tindall, and Cox. 1904. Small 8vo. Pp. 74. Price 2s. 6d.

THIS little brochure contains the matured views of Mr. Browne and Dr. Stevenson on the etiology and treatment of squint. The authors do not pretend to describe all the varieties of this affection but limit themselves to a consideration of the ordinary concomitant convergent squint of childhood, believing that a thorough appreciation of the phenomena of this form of squint both in regard to the order of their occurrence and the concomitant conditions which are conducive to the development of the symptoms will prove more serviceable to the learner than a multitude of statistics. It is pointed out that hypermetropia is of common occurrence in very young children and that they consequently habitually exercise their accommodation which has a tendency to strengthen the internal recti, so that when they begin to examine near objects closely an inversion of one eye or a periodic squint is observed and this passes easily into a fixed habit and becomes a permanent squint. Under appropriate treatment with glasses a secondary periodic squint may be re-established which ends in recovery. The authors are strongly disposed to believe that amblyopia is very frequently associated with squint. And there can be no doubt that defective vision of the squinting eye is of common occurrence. The natural conclusion is that the cause of the defective vision should be carefully investigated, however young the child may be, and any error of refraction that may be present should receive immediate and careful attention. By the prescription of lenses correcting the defect recovery may in many cases be effected and the performance of the various operations that have been devised, whether of the nature of tenotomy of the overacting muscle or advancement of the opposite muscle, be avoided. The difficulties attendant upon determining the appropriate glasses in very young children, it is shown by the authors, may be overcome with patience and the employment of retinoscopy. Astigmatism is often present in the faulty eye.

In an appendix the authors recommend the abolition of the slate and school-book and the replacement of these instruments of education by the black board and are of opinion that the practice of bimanual exercises should be adopted. The after histories of several cases of squint treated without operation are given by Dr. Stevenson. The book is sensibly written.

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## LIBRARY TABLE.

*Bulletin of the Ayer Clinical Laboratory of the Pennsylvania Hospital.*—No. I., issued 1903. Philadelphia. Pp. 88.—In a preface we are informed that "this publication is the result of a deep interest taken in the promotion of the laboratory by the late Dr. J. G. Morton and the kindness of Mr. Frederick Fanning Ayer, who generously provided the funds for its maintenance." The "Bulletin" will be used as a means of publishing the results of investigations which have been carried out in the laboratory in connexion with the Pennsylvania Hospital and will be issued at such intervals as are thought necessary. It is further announced that a copy of the "Bulletin" will be sent "to those interested in its contents who will make a request for it." The formation of such an institution as the "Ayer Clinical Laboratory" is indeed a matter of congratulation for the Pennsylvania Hospital. If private munificence were more frequently devoted to such excellent purposes medical science would be greatly benefited. The volume now before us contains an elaborate essay on the Pathological Histology of Hodgkin's Disease, with a report of a series of cases, by Dr. W. T. Longcope, resident pathologist of the Pennsylvania Hospital, which shows evidence of arduous and painstaking work. Dr. Louis M. Warfield contributes two short articles entitled "The Report of a series of Blood Cultures in Typhoid Fever" and "A Mild Case of Acute Dysentery yielding Bacillus Dysenteriæ (Shiga) in Large Numbers," and a third in conjunction with Dr. J. K. Walker on Acute Ulcerative Endocarditis caused by the Meningococcus (Weichselbaum).

*Practical Physiological Chemistry.* By J. A. MILROY, M.A., M.D. Edin., Demonstrator of Physiology, Queen's College, Belfast; and T. H. MILROY, M.D., B.Sc. Edin., F.R.S. Edin., Professor of Physiology, Queen's College, Belfast. Edinburgh and London: William Green and Sons. 1904. Pp. 201.—This book does not pretend to be anything more than a practical work although the authors have very properly entered into short theoretical explanations where such seemed to be essential for the proper understanding of a practical experiment. There are four sections, the first two dealing with qualitative and quantitative examinations respectively, while the third section is an appendix containing a table of reagents, of wave lengths and other physical constants, and the fourth section deals exclusively with schemes for the detection of an unknown substance. We regard these schemes as an important feature of the work as applied to the search in an unknown solid, or mixture of solids of physiological importance, for proteids, carbohydrates, and other substances. In the list of precipitants of proteids we find that neither bromine nor chlorine is

mentioned. We note also that in the description of the Pettenkofer's test for bile salts cane sugar is directed to be used. Glucose is much better as it has scarcely any tendency to char with the sulphuric acid and thus to obscure the reddish-violet tint which is formed with such a mixture in the presence of bile salts. The authors point out in the chapter on the estimation of sugar in urine that various attempts have been made to render the determination of the complete reduction of the copper solution easier of observation. In this connexion we may refer them to the simple expedient suggested by Mr. S. A. Vasey in a note in THE LANCET of June 20th, 1903. It consists in adding a white inert powder, such as chalk, to the Fehling mixture. In this way the chalk carries the fine separated cuprous oxide rapidly to the bottom of the hot fluid so that the precise point at which the blue colour disappears can be determined. The book forms an excellent basis of a practical physiological course and the illustrations are beautifully executed.

*The Sale of Food and Drugs Acts with Notes and Cases.* By Sir WILLIAM J. BELL, LL.D., H. S. SCRIVENER, M.A., and C. F. LLOYD. Fourth edition. London: Butterworth and Co. 1903. Pp. 276.—The issuing of several new orders and regulations under the Sale of Food and Drugs Acts by the Local Government Board and the Board of Agriculture, as well as the fact that some fresh cases of importance have been decided, have rendered the publication of a fourth edition of this useful work necessary. The present edition has been thus brought completely up to date and we find that it contains notes on some recent cases presenting special points of interest. In summarising the recommendations of the Departmental Committee on Food Preservatives, the authors remark that "up to the present time (October, 1903) none of these recommendations have been carried into effect." We have before pointed out that there can be no justification for delay in the matter of embodying these recommendations in the statute. This book is an excellent legal guide to the public analyst and affords much useful information on analytical and chemical points to the legal profession.

*The Cornish Riviera.*—An illustrated pamphlet urging the claims of Cornwall upon those who desire to enjoy a mild climate in winter and to avoid extreme heat in summer has been issued by the Great Western Railway Company and contains an appendix with particulars of the trains and motor-car service by which various points can most easily be reached. The portion of the letterpress devoted to the advantages of the climate mentions as a work extolling it the "Guide to Mount's Bay and the Land's End," written by Dr. John Ayrton Paris in the year of the battle of Waterloo. Dr. Paris at that time practised at Penzance, where he was the first secretary of the Royal Geological Society of Cornwall and whence he returned in 1817 to London to become in 1844 the President of the Royal College of Physicians of London. He wrote in the days when it took nearly 60 hours of coach travel to reach Penzance from London and to him and to other medical men of more modern date Cornwall has owed many of its numerous visitors. The climate of South and West Cornwall, even in years like the present one, is delightful on account of the warmth and geniality of the days which are fine, but even in Cornwall no one can expect to be free from winter's storms. It must be remembered, however, that the varieties of narcissus and other spring flowers already coming to the London market are being grown in West Cornwall and the Scilly Islands in the open air and that flowering shrubs not often seen further north bloom there throughout the winter. For those who desire a mild climate but at the same time are able to enjoy out-door amusements Falmouth's harbour and bay afford ample scope for safe sailing throughout the winter, except, of course, in very stormy weather, and among the many golf-links those at Lelant, accessible from St. Ives or from Penzance, may be mentioned as situated upon raised sandy ground. Cornish dairy produce is famous and the county is one where many cottagers still bake their own wholesome bread, usually in an open pan upon the hearth.

*The Englishwoman's Year Book, 1904.* Edited by EMILY JANES. London: Adam and Charles Black. Pp. 352. Price 2*s.* 6*d.* net.—This volume is a worthy companion to "Who's Who?" and contains a vast amount of information upon every subject connected with the employment of women, whether as regards philanthropy, science, professions, business, or amusement. It has an admirable index and we are glad to see that the advertisements are as carefully edited as the rest of the book, with the exception of one dealing with magazines and the like edited by a lady who is neither more nor less than a quack practitioner.

## JOURNALS AND MAGAZINES.

*The British Journal of Psychology.* February, 1904.—The first number of this new periodical has reached us and serves to remind us how modern, at any rate in this country, the systematic study of psychology is. It is only quite recently that it has attained to the position of a positive science. But within the last 15 years, say in their foreword Professor James Ward and Dr. W. H. R. Rivers, the joint editors of the new venture, 40 psychological laboratories have come into existence, lectureships on the subject have been founded, societies have been instituted, while seven serial publications devoted entirely to psychology have appeared in other countries. The new magazine has therefore been started with the full belief that it is required. Professor Ward's opening paper on the Definition of Psychology is an admirable introduction to a science which in an exact sense is most difficult to appreciate, even though everybody can tell in a general way what psychology is about. An interesting paper follows by Professor Sherrington upon "Binocular Flicker." This is a record of experiments inquiring into the influence exerted on the reactions of a "retinal point" by certain forms of activity at the corresponding point of the other retina. (By "retinal point" is understood the retino-cerebral apparatus engaged in elaborating a sensation in response to excitation of a unit of retinal area.) Dr. J. Lewis McIntyre, lecturer on comparative psychology in the University of Aberdeen, contributes to the history of psychology a study of the sixteenth century Italian philosopher Telesio. The volume terminates with a paper by Mr. W. McDougall, reader in experimental psychology in University College, London, upon the Sensations excited by a Single Momentary Stimulation of the Eye.

*The Practitioner* in its February issue continues Dr. A. E. Wright's very complete and instructive article upon anti-typhoid inoculation. In the present contribution he shows how the vaccinating elements in the typhoid culture are maintained intact after exposure to a temperature of 60° C. The efficacy of the elements in the red corpuscles which induce an elaboration of hæmolytic antitropins in the organism is somewhat diminished by exposure to this temperature; and exposure to a temperature of 72° C. completely abolishes the immunising properties of the red blood corpuscles. Dr. Arthur Whitfield contributes the first of two lectures on eczema and gives details of one or two remarkable instances of idiosyncrasy in the matter of hypersensitiveness of the skin. The nervous origin of some cases of eczema is alluded to in another article entitled "Hypnotism" in which a cure of such a case by this means is mentioned. This article on hypnotism deals mainly with Dr. J. Milne Bramwell's recent work on the subject.

# New Inventions.

## APPARATUS FOR MAINTAINING ARTIFICIAL RESPIRATION.

THE appliance represented in the accompanying illustrations is intended principally for keeping up artificial respiration and has been devised by Dr. Rudolf Eisenmenger of Piski in Hungary. It consists essentially of a relatively high rigid dome of such a length as to extend from the upper part of the sternum to nearly the pubic region. It is attached to the patient by straps which completely encircle the body, and in order that the junction may be air-tight it has india-rubber packing along the lower side of the margin and, moreover, has flexible lateral flaps which reach almost to the patient's spine. In Fig. 1 the dome and the indiarubber packing are shown in section, while the straps and the borders of the flaps are marked by dotted lines. On the summit of the dome there is a short tube giving access to the interior and connected to a long flexible tube which leads to a pair of bellows lying on the floor, as shown in Fig. 2. When the air within the dome is exhausted by the bellows the abdominal wall rises and air is drawn into the lungs; on the other hand, the forcing of air into the dome by the bellows causes the lungs to be emptied. Evidently an effect will also be produced on the flow of blood to or from the heart. Dr. Eisenmenger says that the apparatus can be used not only for the treatment of persons suffering from asphyxia but also for the performance of abdominal massage. It is easily applied and is portable enough to be carried in a hand-bag, the total weight being from 20 to 30 pounds.

FIG. 1.

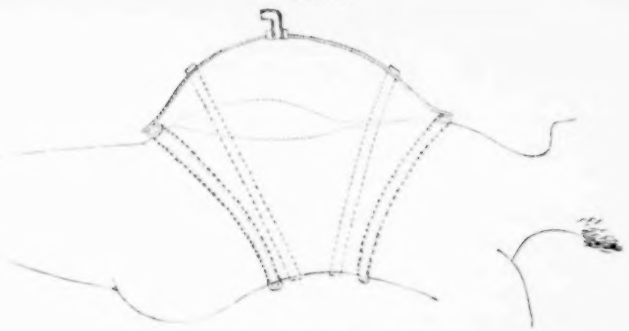

FIG. 2.

## A NEW ANAEROBIC APPARATUS.

THE following is a short description of a new anaerobic apparatus which I had designed and which is giving excellent results. It consists of a large, strong glass jar having a constriction near its base and a ground closely fitting lid on top, the sides of the jar projecting above the height of the lid for half an inch. Two lateral openings are let into the vessel. The first, situated one inch below the lid, has a short strong tube fused in, which has a short piece of pressure tubing firmly attached and furnished with a Hofman's pinchcock, and this is when required attached to an exhaust pump. The second opening situated below the constriction of the vessel, has a perforated, tight-fitting rubber cork through which passes a bent glass tube reaching to within a quarter of an inch of the floor of the jar. The other end has two arms, one of which is a reservoir for caustic potash solution, the other leading to the hydrogen supply. Both arms are furnished with stopcocks. To work the apparatus, a sufficiency of pyrogallic acid is first put into the reservoir at the foot of the vessel, the perforated porcelain rest is placed on the constriction, and the plates or tubes to be cultivated are placed upon this rest; the glass lid is well smeared with vaseline and replaced and pressed firmly down. Into the ledge left between the top of the lid and the top of the vessel wall is placed soft paraffin soap which almost covers the whole surface of the lid. Now connexions are made with the exhaust pump and hydrogen apparatus and it is seen that the stopcocks of the hydrogen supply tube and the potash supply tube are both closed. The pinchcock of the exhaust tube is opened and all air exhausted, the pinchcock is shut and the hydrogen stopcock is opened to admit hydrogen, this process being repeated six times to insure a complete hydrogen atmosphere; then, closing the hydrogen stopcock, a little of the hydrogen is exhausted by means of the exhaust pump, just enough so as to have a slight negative pressure within the vessel. Now the reservoir is filled with potash solution and the stopcock is opened to allow the solution to flow gradually into the vessel. Enough is run in so that the end of the tube will be below the resulting mixture and so act as a seal to it. It is best to run in a little water after the potash solution so as to clean the tube and obviate the effects which it is likely to have on the glass.

The apparatus has been made and is supplied by Messrs. Baird and Tatlock, 14, Cross-street, Hatton-garden, London.

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# THE LANCET.

*LONDON: SATURDAY, FEBRUARY 20, 1904.*


## The Rainfall and Mortality of 1903.

ALTHOUGH, taking England and Wales as a whole, the rainfall of 1903 was exceeded by that of 1852 and 1872 the downpour of the year recently ended was sufficiently unusual to justify us in inquiring how far and in what direction it may have influenced the mortality statistics. The inquiry is more particularly called for seeing that the rainfall of 1903 came after 15 years of remarkably low rainfall and that it exceeded the average of the previous 15 years by at least 35 per cent.,[1] a fact which increases the value of a comparison of the statistics of 1903 with the average of the previous ten years. In endeavouring to gauge the effects of the rainfall of 1903 it is well to bear in mind the fact that in some parts of England, such as the Cumberland hills, the annual rainfall may amount to as much as 150 inches, while in the hills to the north of Bengal no less than 600 inches have been recorded. The statistics of Bengal do not suffice to enable an examination to be made of the disease values of this rainfall and the question therefore arises whether in our own country, where the records both as regards rainfall and deaths are at least as trustworthy as in any other nation, it is possible, with only the data at present available, to determine even approximately the effect upon the death-rate of the wet year 1903.

Let us consider what are the physical consequences of rainfall and what are the results which may be expected to accrue from them. In the first place, as is well illustrated by the remarkable clearness of the atmosphere after rain, the falling water washes from the air and from surfaces upon which it impinges the dust and micro-organisms which accumulate therein and thereon in consequence of the operations of man and animals and of atmospheric currents. This being so, it is reasonable to anticipate that, *ceteris paribus*, rainfall tends to reduce the prevalence of, and hence probably the mortality from, certain air-borne diseases. But against this consideration has to be placed the fact that protracted bad weather tends to keep people indoors and thereby to enhance the opportunities of contracting air-borne infection. Again, rainfall in proportion to its degree maintains in a condition of moisture collections of dust and refuse from which particles in a dry state are easily detached and carried by the wind. In this fashion rainfall may be considered to reduce the chances of the infection of food by pathogenic organisms, while, further, in a somewhat similar manner it diminishes the prevalence of dust-carriers, such as the common house flies and other insects. This reduction of dust-carrying agencies might be expected to be reflected in the death returns in a diminution of that disease which is so intimately associated with polluted milk and other foods—i.e., diarrhœa—and probably the enteric fever rates might be expected to be influenced favourably, at least in some degree, by the same agencies. On the other side has to be placed the influence of rain both in the direction of the flushing of sewers, the discharge from storm overflows, and the washing of manurial surfaces into rivers and into reservoirs fed by pastured or cultivated catchment areas, agencies which might be expected to carry pathogenic organisms and much mineral detritus into water-supplies. The turbidity of drinking water after periods of heavy rain is a matter of common observation and such turbidity has, as our readers are aware, not infrequently been associated with outbreaks of enteric fever and diarrhœa. Finally the rise in the level of the subsoil water and the general increase of surface moisture might augment the death-rate from diseases such as diphtheria, pulmonary tuberculosis and other bronchial complaints, as also from chronic rheumatism and—according to some authors—from measles and whooping-cough.

The official statistics are not yet available to enable all these diseases to be examined but the recent issue of the Registrar-General's last quarterly return renders it possible to show in what manner certain diseases have behaved in the several quarters of 1903. It is, of course, important to remember that the rainfall of one quarter may influence the vital statistics of the following quarter and that the rainfall of the whole year 1903 may not be without its effect upon the statistics of 1904. If we take a general view of the figures for 1903 as a whole the interesting fact stands out that the general death-rate was the lowest on record—i.e., 15·4 per 1000—and compared with the average rate in the ten years 1893-1902 it shows a decrease of 2·2 per 1000. The inference which may be drawn from this fact is that the wetness of 1903 did not exert an unfavourable influence upon the general death-rate of the year. It is, however, desirable to look into the figures a little more in detail but unfortunately this is not yet possible save in regard to certain diseases. With a view of showing at a glance in what manner the death-rate for the several quarters of 1903 compares with the rates for the ten previous corresponding quarters we have constructed a table relative to (1) the general death-rate, (2) "fever," (3) diarrhœa, and (4) diphtheria. In the first column of each group are the quarterly rates for 1903 and in the second column there are figures showing to what extent the rates for 1903 were above or below the average for the ten preceding quarters. The rates in all cases are rates per 1000.

| Quarters. | General death-rate | | "Fever." | | Diarrhœa. | | Diphtheria. | |
|---|---|---|---|---|---|---|---|---|
| | 1903. | + or − average. | 1903. | + or − average. | 1903. | + or − average. | 1903. | + or − average. |
| 1 | 16·8 | −2·9 | 0·09 | −0·05 | 0·17 | = average | 0·23 | − 0·08 |
| 2 | 14·9 | −1·7 | 0·08 | −0·03 | 0·17 | − 0·06 | 0·16 | − 0·06 |
| 3 | 13·9 | −3·0 | 0·10 | −0·09 | 1·16 | − 1·10 | 0·15 | − 0·09 |
| 4 | 16·2 | −1·1 | 0·14 | −0·11 | 0·49 | + 0·08 | 0·17 | − ? 0·13 |

From this table it would appear that almost without exception the quarterly rates show a very material reduction

[1] See article in the *Times* of Jan. 11th, 1904, by Dr. Hugh Robert Mill on the Rainfall of 1903.

on the averages for the corresponding quarters of preceding years, and although we cannot spare space to reproduce the tables which we have drawn up relative to infantile mortality, whooping-cough, measles, and scarlet fever, we may add that, as with the figures in the above table, there was almost invariably a fall in the average rates. Whether these general reductions are in point of fact ascribable in large measure to the excessive rainfall alone is a matter upon which we shall express no definite opinion. Rainfall is but one of the several meteorological factors which may either promote or retard the vital processes of micro-organisms. The figures, so far as they go, do not support a view that a wet year promotes the spread of any of the diseases to which reference has been made. When, however, the Registrar-General's annual report for 1903 is issued it will be possible to take a more detailed view as regards the death-rates and the rainfall in certain specified parts of the country.

## The Administration of Opium in Pneumonia.

THE influence of waves of thought upon prevailing practice is demonstrated more fully with pneumonia than with any other disease. The range of surgery has been incalculably extended of late and physicians owe much of their conceptions of the processes of disease to researches which primarily lead to results in the domain of surgery. With ever increasing knowledge of the etiology of pathological conditions it is natural that greater precision of treatment should be required. Every fresh discovery which throws light upon the causation of disease must necessarily be followed by further thoughtful investigation of the adequacy and suitability of the methods of treatment which have hitherto been generally adopted. Treatment is always an indication of current conceptions of morbid processes. Every advance probably induces momentary scepticism of the value of routine treatment which has been adopted as the outcome of experience, and this scepticism is an aid to progress when it leads to the correction of error and to the discontinuance of antiquated methods, but it is a hindrance when, in the desire to seek novelty, it hastily discards all treatment before what threatens to become a new formula—namely, the proclamation that a self-limited systemic infection must come to a natural ending and therefore needs no treatment.

When pneumonia was regarded as an acute inflammatory affection due to cold it was treated vigorously by bleeding and by purgatives, which without doubt relieved pain and diminished arterial tension. On account of the dry burning heat of the skin diaphoretics were sometimes employed, the most important being tartar emetic. Then followed the group of stimulant expectorants to facilitate the removal of the exudation. But it was soon realised that drugs were scarcely required. Indeed, the extravagant claims put forward for homœopathy paved the way for the recognition of a normal definite crisis in pneumonia independently of active interference, and this in turn was a step towards the subsequent discovery of the presence of micro-organisms and to the numerous attempts which have been made to utilise this knowledge. For the present most clinical observers are convinced that with our known resources it is impossible to curtail the duration of the fever which is, indeed, regarded in some quarters as a natural effort to limit and to control the development of micro-organisms. Accordingly, while some, on the self-limited systemic infection theory, think there is nothing to be done, others turn more hopefully to symptomatic treatment. Of late years there have been many indications of uneasiness concerning symptomatic treatment in pneumonia, and more than one observer has declared his conviction that it cannot safely be pursued on ordinary lines. Many maintain that several distressing symptoms are really conservative in their origin and that any interference with these may be followed by dangerous results. The pyrexia and the dyspnœa of pneumonia would under such reasoning be regarded like the diarrhœa of typhoid fever as being beneficial within reasonable limits, and therefore to be checked only when they appear to be excessive. In nearly every case of pneumonia, if symptomatic treatment is to be adopted, there are probably numerous temptations to employ opium or morphine. The severity of the pleuritic pain at the outset seems to demand the adoption of measures calculated to afford relief, and since opium is ordinarily the drug which is relied upon for this purpose it is probably the one to which thoughts will first turn. It is, moreover, the drug which is definitely recommended in many text-books and works of reference. One favourite text-book distinctly advocates the hypodermic injection of morphine for the relief of the stitch in the side at the onset of pneumonia and further recommends that when the disease is fairly established Dover's powder should be given to check cough and so to alleviate pain.

Nearly two years ago[1] we had occasion to refer to Sir WILLIAM T. GAIRDNER'S view of the extreme danger of opium in pneumonia. In a paper published in the *Glasgow Medical Journal* for April, 1902, he maintained that the safety of the patient depends upon the respiratory nerve centres being kept, as it were, "wide awake." His views, with which we then expressed our concurrence, have recently received confirmation from Dr. STEPHEN SMITH BURT[2] who discusses the purposes for which opium has frequently been administered in pneumonia and gives his reasons for regarding it as a dangerous drug in this disease. He mentions its employment to relieve pleuritic pain, but for this purpose strongly advocates the local application of an ice-bag, or a hot poultice, or strapping the affected side of the chest, or if these fail he recommends dry-cupping, using a large common tumbler. With regard to the administration of opium to allay cough he pertinently remarks that the average cough of pneumonia with expectoration for obvious reasons should be rather promoted than suppressed. Similarly he contends that when given in this disease to quiet restlessness opium is prejudicial, since under these conditions restlessness is preferable to somnolence. Dr. BURT reminds us that opium, except in doses that are infinitesimal, depresses and finally paralyses the centres of respiration and that it checks every secretion save that of the integument. He holds that in pneumonia the existence of the patient

[1] THE LANCET, April 26th, 1902, p. 1200.
[2] The Post Graduate, New York City, January, 1904.

depends upon a maintenance of the integrity of the respiratory centres, together with the powers of elimination. Sir WILLIAM GAIRDNER in the paper above referred to said that he had repeatedly seen toxic symptoms from very moderate doses of opium in certain stages of pneumonia and that, especially towards the crisis, he had learned to dread it more than almost any other drug. In view of this experience it is interesting to note that the fatality mentioned by Dr. BURT resulted from the hypodermic injection of morphine when the patient was apparently on the road to recovery—that is, presumably, just before the crisis. The facts and arguments against the employment of opium at this stage seem so strong that they demand thoughtful revision of the recommendations at present to be found in text-books; greater emphasis should be placed upon the risks incurred, except possibly at the onset of the disease, and greater stress might well be laid upon the amount of relief which is then frequently afforded by the local application of ice or by the abstraction of blood by leeches. The immediate ease which results from the use of morphine for pleuritic pain in pneumonia should not entail disregard of warnings against its employment based on experience and on reason.

## The Future Position of the Dental Profession.

IN the issue of THE LANCET of May 23rd, 1903, p. 1456, reference was made to the question of a dental degree in the University of London. In that article the view was expressed that if a degree in dentistry were instituted it should only be in conjunction with the M.B. and B.S. Quite recently—namely, on Jan. 23rd—an extraordinary general meeting of the British Dental Association was held to consider the expediency of degrees in dentistry and after lengthy discussion it was decided by a majority of two to one that such degrees were undesirable. It is held by the advocates of such degrees that the decision arrived at will not influence in any way the various universities in forming their opinions. If such is really their view it is somewhat difficult to understand their position in endeavouring to induce the British Dental Association to memorialise the Senate of the University of London to grant degrees in dentistry. We consider that the view expressed by the majority of the meeting should have some influence with the University of London and other universities and we cannot help feeling that the various institutions will be guided by the opinion held by those best qualified to discuss this problem. They can hardly force degrees upon an unwilling profession, especially as such a course would probably lead to a serious breach in what is now a united profession. In endeavouring to arrive at a wise decision on this subject, which apparently is causing quite a storm in the dental world, it would be well for those engaged in the contest to keep clearly in view the relation of dental surgery to medicine. Regarded from a broad point of view the whole matter resolves itself into the question whether the practice of dental surgery is to retain its position as a part of medicine or is to be relegated to the position of an isolated profession. That the latter condition is the distinct and avowed wish of some of the supporters of the dental degree is undoubted but this view is diametrically opposed to the opinions held by the most competent teachers in this country. It is only natural with two such schools of thought that the ideas of training the student should also be widely different. The former school insists that the training should be in the main mechanical and views the need of a good medical training as apparently quite secondary. The latter school takes a broader view of dentistry and naturally considers it of the greatest importance that those dealing with the diseases of any part of the body should possess a thorough knowledge of general pathology and have a firm foundation on which to practise their specialty. It is not difficult to see how this diversity of opinion has been brought about if we consider the position of dentistry in the middle of the last century. Then dentistry consisted almost entirely of extraction and the substitution of artificial dentures. It was a trade and the mechanical element was writ large because the only dental practice known was mechanical. Increased knowledge of caries, of the diseases of periodontal membranes, of the relationship of dental disease to general systemic conditions, and of oral deformities to nasal affections has all tended to broaden the scope of dental surgery and so has introduced into its therapeutics means of treatment which are not solely mechanical. A point also to be considered in dealing with this magnification of mechanical ability as the main idea in training is the influence which rational therapeutics must exert in the development of the future treatment of the teeth. The student educated with higher ideals than heretofore will endeavour to carry into his work that highest ideal of all—viz., "prevention." That should be his watch-word and the effect of prophylaxis in dentistry will be the simplification in a marked degree of the operations which he is called upon to perform. His work will be of a far more simple character than heretofore and the elaborate technique called for in the operations of the present day will not be required to anything like the same extent. It may be argued that such a state of affairs is far away. Even if that be so, its realisation will be quicker the broader the views of treatment given to the future dental surgeon and the greater the impression on his mind that mechanical operations are not the sole agents of treatment.

The broader the foundation of education the less we shall hear of dentistry as a separate profession and the more it will be apparent to the intelligent that its correct place is in the fold of medicine. Another reason why in the minds of some the medical training is quite secondary to the more purely technical training is due in a large measure to the extraordinary immunity of the oral tissues to infection. The removal of a tooth, which is a minor surgical operation, is in a great measure free from all those complications likely to follow any other operations. It is this condition which blurs the visions of those who fail to see that the practice of dental surgery is but part of the practice of general medicine. If tooth extraction and other dental operations were more liable to be followed by complications we should hear but little about the secondary importance of the medical training. It is hardly necessary to repeat here the arguments we have so often advanced to show that dentistry

is but a specialty of medicine and can best be rationally practised by those possessing a thorough knowledge of disease in general.

Holding this view we fail to see that any advantages can possibly be gained by the institution of dental degrees unless granted to holders of medical qualifications. It is admitted, even by the advocates of the dental degree pure and simple, that the present qualifying examinations are sufficient for the average practitioner and the principal argument advanced is that dental degrees would be the means of stimulating research, which is to be done by requiring a higher standard of technique and a broad acquaintance with pathology and the principles of surgery. The idea of stimulating research by instituting a dental degree is hardly worthy of consideration. The desire to do research work is not the product of examination. Still further, increased technique in dental operations will not tend to foster research but it will tend to make the possessor of the dental degree regard himself as being on a higher plane than the licentiate in dental surgery. It is argued, too, that the degree would be of a higher educational value than the ordinary qualifying examination. That may possibly be the case at the University of London but there is no proof that other universities, which would follow suit, would insist on even such a high standard as that required by the Royal College of Surgeons of England. The institution of dental degrees will certainly not be for the welfare of the public. At the present time the public are beginning to recognise that the diploma indicated by the letters L.D.S. is the hall-mark of a dentist and so far the quacks and charlatans have been unable to turn these letters to their own use. Let the universities grant degrees and the public will be bewildered with innumerable letters; it will be excessively difficult for them to discriminate between genuine and spurious appellations. Still further, the possibility of one of the universities granting a doctorate in dental surgery must not be lost sight of and the institution of such a degree would do endless harm and would lead the already too gullible public to believe that the holder of such a degree was a medical man. If the universities are anxious to grant qualifications they can grant diplomas similar to the licence in dental surgery and we must not forget that under the Dentists Act this licence is the only diploma registrable in this country. In order to overcome this difficulty it has even been suggested that at the conferment of the degree a licence in dental surgery should be presented. This, surely, can be looked upon in no other light but as an evasion of the Dentists Act and we feel that no university would be guilty of such an action. The conferment of degrees in dentistry on those not holding medical qualifications would tend to separate dentistry from medicine rather than to increase the bond of union.

Let us for a moment glance at the position of other specialties. In public health a diploma is given by several examining bodies but only to those holding medical qualifications. Quite recently the University of Cambridge has decided to institute a degree in tropical medicine but naturally only to the medical practitioner. If degrees were granted in such specialties as diseases of the eye, throat, and nose they would only be to medical practitioners. Dentistry, then, is to stand alone as not requiring any medical qualification. To those advocating the degree this would probably be acceptable but to the large body of dental practitioners and in the interests of dental science the step would be disastrous. It is therefore of great importance that the dental profession should place before the university authorities the many objections to such degrees in order that the question may receive the attention that it deserves.

## London Thoroughfares.

THE last sessional meeting of the Sanitary Institute of Great Britain was usefully devoted to papers and discussions upon the state of streets and thoroughfares in relation to public health, and hence to an endeavour, on the part of several competent authorities, to recall town councillors from the contemplation of vast schemes of municipal trading or manufacture, and to direct their attention to the comparatively humble duty of effective scavenging. Perhaps the most important contribution laid before the meeting was contained in a paper by Dr. LOUIS C. PARKES, the medical officer of health of Chelsea, who dwelt emphatically upon the disease producing properties inherent in the peculiar compound which, according to the state of the weather, may be described either as London mud or as London dust and which, in the former condition, olings lovingly to the lower portions of female apparel, while in the latter it is plentifully inhaled by both sexes alike, and is carried by currents of air into larders and other receptacles of food, in such a manner that the bronchial mucous membranes of urban dwellers have no unfair advantage over the gastric and the intestinal. The methods and circumstances of the distribution are of such a kind as to render it extremely difficult to trace any single case of disease either to the inhalation or to the swallowing of the abundantly diffused material, but the nature of this material forbids us to doubt its capability of doing harm whenever opportunity is afforded. The open dust carts and the excreta of dogs and cats, to which Sir HENRY THOMPSON has called attention, supply an abundance of the bacteria of putrefaction and of the ova of intestinal parasites, while the bacteria of specific infectious diseases can seldom be entirely absent from the general *olla vodrida*. When clouds of visible coarse powder, interspersed with fragments of paper or of cabbage leaf, are blown into our faces from a passing dust cart we are apt to forget the state of fine division which the constituent particles of these clouds will presently assume, and in which they are probably more likely to be hurtful than even in their original condition. Many attempts have been made, with very partial success, to exclude dust from the cases containing the more valuable books in the library of the British Museum, and that which finds entrance and can be collected in impalpable powder from the surfaces of the leaves always exhibits under the microscope evidences of its sources in Bloomsbury in the shape of fragments of horse droppings, of iron, and of granite. Other treasures would, no doubt, occasionally reward a complete examination, and among these would almost certainly be various

bacteria in a condition to multiply as soon as external circumstances became favourable to them. Dr. PARKES drew a lesson from the comparative healthiness of 1903, stating that the continued wet, and especially the character of the frequent very heavy rains, had washed away from the metropolis a large proportion of the dirt which is usually inhaled and swallowed by the inhabitants; and he thence inferred that macadamised roadways should, as soon as possible, be superseded by wood or by asphalt and that these should be effectively cleansed by daily washing. This course is already pursued within the boundaries of the City.

With regard to town dogs Dr. PARKES is even more emphatic than Sir HENRY THOMPSON, for he describes them as "an unmitigated nuisance." He further declares that the present state of the footpaths, in relation to canine excreta, is largely due to the disappearance of an industry by which these excreta were formerly collected for use in tanneries and which has now been superseded by the products of an artificial or laboratory dog made in Germany. The chief blame must, however, be laid upon the local authorities who, as a rule, totally neglect that duty of cleansing footpaths which the law clearly imposes upon them. The real grievance in the matter is that the individual householder has no easy remedy against the local authority and that any proceedings taken against this authority would be defended at the cost of the rates. No single amendment of the law would be so valuable, in relation to the health of towns, as a power given to any householder to apply to a magistrate for an order directing negligent authorities to do their duty and throwing the cost of the proceeding upon the shoulders of the negligent persons whoever they might be. Dr. PARKES further advocates, what the *Times* had suggested a month before, the imposition of a municipal tax upon dogs, in addition to the national tax, and as a means of meeting the expenditure rendered necessary by their presence in towns. The ownership of a dog has a remarkable tendency to convert even a philosopher into an unreasoning being and the proverb, "Love me love my dog," has its foundation in one of the deepest principles of human nature. But an urban dog-owner may perhaps be expected to acknowledge liability to pay for the cleansing rendered necessary by the habits of the favourite. A correspondent of the *Times* suggests that dogs may "easily be taught" to resort to the carriage way, instead of remaining upon the footpath. There are not many dog-owners, however, who possess the knack and the patience necessary for such education; and, even supposing it to be completed, an unfortunate constipated dog in a carriage way, endeavouring to detach an adherent foot or two of tapeworm from its person, would be an easy and certain prey to the swift butcher's cart or the passing automobile. There would soon be an outcry from urban dog-owners for the prohibition of wheeled vehicles. In the meanwhile, however, the tendency for reform seems to be in the opposite direction, for Dr. PARKES looks forward to the disappearance of horse-drawn conveyances as to the beginning of a new sanitary era. It is at least certain that the contributions of our equine friends towards the general defilement of town thoroughfares are very considerable, and that the withdrawal of these contributions would be an important step towards the simplification of the general problem. There would still remain the dogs, the cats, the garbage, the vegetable refuse, and the dust-cart. Worse than all, there would still remain the average town councillor, built upon the model of JOHNNY HEAD IN-THE-AIR in Struwwelpeter, with his thoughts divided between schemes of electric lighting and a contemplation of his own importance, and so occupied by higher things as to have no consciousness of canine excreta until the happy day when he chanced to walk unwarily, and thus to introduce into the sanctuary of his own dwelling the nuisance which he had previously been content to ignore.

# Annotations.

**"Ne quid nimis."**

## THE PRACTICAL TEACHING OF MIDWIFERY IN AMERICA.

IN the *Journal of the American Medical Association* of Oct. 3rd, 1903, are published the results of 1000 cases of labour attended in the extern maternity department of the University College of Medicine, Virginia. The account is of considerable interest in that this is the first attempt to institute a system of free service for lying-in women in their own homes in the Southern States of America. It is also noteworthy for the very excellent results which have been obtained; the mortality rate is only 0·5 per cent., while only four cases of sepsis occurred. As the writer points out, such a mortality and morbidity rate contrast very favourably indeed with the results of both the intern and extern departments of some of the best known foreign maternities. They show what can be done even in the most unfavourable circumstances, many of these patients, including coloured as well as white women, being attended amidst surroundings of the utmost poverty, conditions even worse than those not uncommonly occurring in the extern maternity work of some of the London hospitals. Dr. J. F. Winn is to be congratulated on the results of his organisation and of his teaching. His aim has been to impress the students with the danger of infection and without using any great array of aseptic paraphernalia to reduce the system of disinfection to as simple a one as possible. Great care is taken in making vaginal examinations but the ante-partum vaginal douche is not employed. Special attention is devoted to keeping the hands and especially the examining hand sterile, and the disinfection of both the external genitalia and the hands is repeated before each examination. Vaseline is not employed as a lubricant. Reliance is placed upon the thorough scrubbing of the hands and forearms in soap and water, followed by their immersion in perchloride of mercury, 1 in 1000, for not less than five minutes and then in a solution of lysol of the strength of one drachm to the pint. Great stress is laid upon the proper management of the third stage of labour. The perusal of this report reminds us of the deficiencies in the practical training in midwifery of medical students in London. At the present time when the registration and training of the midwife are occupying the professional mind to such an extent the imperfect clinical training which medical students receive in this subject is in danger of being forgotten. The standard of the clinical teaching in midwifery, with the exception of that given in such an institution as the Rotunda Hospital in Dublin, is far below that received by the student in both medicine

and surgery. The want of properly equipped lying-in hospitals throughout the country, the reluctance of women to enter such institutions, and the fact that most of the work must therefore be done in the homes of the poor render proper systematic clinical teaching almost an impossibility; indeed, in London midwives are better provided for in this respect than are medical students. It is almost impossible for the student who comes to London for the purpose of taking out special courses of study to obtain any opportunities of doing practical work in either midwifery or gynæcology. Even the amount of knowledge required of a student before taking duty in the extern maternity department of his own hospital is, we fear, in only too many instances very deficient. In most maternity departments the obstetric assistant is required to go with him to his first case of labour, but when, as not infrequently happens, this officer is engaged with some abnormal case the student often proceeds to his first case either alone or in the company of some friend who has completed his term of duty. It is true that the interests of the patient are safeguarded by his being required to send for assistance in all cases where he is in the least difficulty or doubt, but how much advantage can the student obtain from his term of office, completed as it so often is without his receiving any clinical instruction at all on the normal cases which he attends? Even if he meets with some abnormal case the teaching that he receives in the case is probably given to him by the obstetric assistant, often no doubt a very good man, but who is of the same standing as a house surgeon or house physician and whose teaching cannot for a moment be compared with the bedside teaching received by the student from the members of the hospital staff on medical and surgical cases. A system by which the student is dependent upon such casual and imperfect teaching in a subject of such practical importance as midwifery is obviously a wrong one. We fear, however, that no improvement will follow in this respect until the matter is taken in hand by the examining boards. It is one the importance of which is recognised by every obstetric teacher in the metropolis and it constitutes a grave defect in the training of the student which urgently demands a remedy. It is little wonder that foreign and colonial students express surprise when they are told that if they want systematic clinical teaching in midwifery they must go not to a hospital in London but to one in Dublin.

## WATER-CRESS AS A SPECIFIC FOR BERI-BERI.

WE have received from the Foreign Office a copy of a despatch from Mr. John G. Haggard, His Majesty's Consul at Noumea, New Caledonia, relating to beri-beri, and a note on this despatch by Sir Patrick Manson, medical adviser to the department. The purport of Mr. Haggard's despatch is to report to the Foreign Office a circumstance respecting beri-beri which, to quote the guarded official language, "may or may not be of some importance in view of His Majesty's West African possessions." Beri-beri is very prevalent on the island of Noumea amongst the natives of all nationalities working at the mines and, says Mr. Haggard, "it seems to have been found out quite accidentally that watercress is an almost certain cure. Consequently all the mining companies are cultivating it largely." The despatch was submitted to Sir Patrick Manson who suggested, in reply, that the statement that water-cress had been found to be a cure for beri-beri should be sent to THE LANCET, the *British Medical Journal*, and the *Journal of Tropical Medicine*, with an intimation as to its source. "I would point out," continues Sir Patrick Manson, "that similar statements as regards the influence of various kinds of food on beri-beri have frequently been brought forward on inadequate experience. It would seem that in the endemic areas many kinds of malnutrition predispose to the disease. It may be that there has been a deficiency of vegetables in the dietary at the mines in New Caledonia predisposing to beri-beri and that this deficiency has been made good by water-cress. That this vegetable has a specific action on the germ of the disease I question. However, it is an experience worth following up. The publicity given by the medical press will insure this." Sir Patrick Manson's inference as to the subordinate part that has been played by water-cress as a remedy for beri-beri is almost certainly right. On the other hand, it is conceivable that water-cress may have some specific action and we have certainly no right to exclude on *a priori* grounds such possibilities as these. The publicity given in our columns and in those of our contemporaries to Mr. Haggard's despatch will doubtless lead to a wide trial of the virtues of water-cress, so that in a short time we should have much recorded experience to guide us to a decision in the matter.

## THE MENTAL AND MORAL EFFECTS OF THE SOUTH AFRICAN WAR ON THE BRITISH PEOPLE.

THE widespread and varied impression created on the people of Great Britain by the late war with the Boers of South Africa is a matter of common knowledge. In the *Journal of Mental Science* for January Dr. R. S. Stewart of the Glamorgan County Asylum makes an attempt to arrive at an exact idea of its effects on national character and conduct. "There is abundant evidence," says Dr. Stewart, "to show that it produced an immediate and very profound, though unlasting, modification of national character." The early period of the campaign, which comprised the last few months of 1899, was that of Britain's greatest stress. The events of that period included the siege of Kimberley, Mafeking, and Ladysmith, and the reverses sustained at Nicholson's Nek, Stormberg, Magersfontein, Colenso, and Spion Kop. The feelings engendered by the events of this period were those of painful anxiety, but a spirit of determination was aroused in the nation that at all hazards the enemy must be overcome and that no sacrifice should be felt to be too great for the purpose. During the last quarter, and especially in the last month, of the year 1899 there was a marked diminution of serious or indictable offences, but this improvement in the *morale* of the nation was not sustained, for in the following year the criminal tendency steadily rose to normal levels and in the last quarter of 1900 it showed an increase of 8·1 per cent. above that of average years for England. In Wales and Ireland similar phenomena were noticed. As regards offences against property a temporary subsidence of crime in this respect during the last quarter of 1899 was followed by a rise in the percentage of such offences during the first three quarters of 1900, while the increase in the last quarter was 9·7 per cent. above the average. Similar conditions prevailed in Scotland and Wales. Crimes of impulse and passion, which had diminished appreciably in the last quarter of 1899, increased during the next year. "The year 1900," adds Dr. Stewart, "witnessed a gradual but steady weakening of the influences exerted by the events of the preceding quarter. The number of murders in England also increased slightly during 1900, the murders of newly born children, a peculiarly female crime, showing an increase of 6·1 per cent." As regards crime of a sexual nature a decrease in 1899 was followed by a return to normal levels before the closing of 1900 until in December, 1900, a great increase above normal limits was reached in all three divisions of the United Kingdom—viz., 28·9 per cent. in England, 60 per cent. in Ireland, and 61·1 per cent. in Scotland. Suicides and

suicidal attempts diminished in 1899 but rose to normal levels in 1900 and in December of that year an increase of suicides by 50 per cent. was noted in England. Combining the homicidal, suicidal, and sexual offences under one head as crimes of impulse and evil passion, says Dr. Stewart, the restraint produced in the last quarter of 1899 soon wore off and the percentage of crimes rose to considerable heights at the close of 1900. "The records relating to minor non-indictable offences indicated the same moralising effects as in the case of serious crimes [in 1899], an effect gradually but surely disappearing as time progressed, in 1900." The proportion of insanity has shown a grave tendency to increase, especially in the years 1901 and 1902, as regards "first admissions" to asylums of the United Kingdom. The marriage rate showed a decrease during 1900 while illegitimate births showed a corresponding increase throughout the kingdom. There was thus for the time being, concludes Dr. Stewart, an improvement in the whole national *morale* during its period of trial—the last quarter of 1899 and the early days of 1900, a change the cause of which may be attributed to the circumstances of the time which were of such a nature as to arouse concern and even anxiety for the safety and success of the United Kingdom. Gradually, however, with the advent of success to the British arms in 1900, the effect produced by these events passed away until by the end of 1900 it had vanished and there was a return to something even worse than previously prevailing conditions. "We were rudely and painfully aroused out of our moral trypanosomiasis," concludes Dr. Stewart, "but to all appearance the danger being overpast, the reaction has proved, and is likely to prove in the future, productive of the gravest results."

## PRESCRIPTION AND ADVICE.

THE relative values of a medical man's advice and of his prescription are very different in the public and in the professional eye. The public pin their faith to "medicine," the instructed know how often advice is the more valuable portion of a medical man's services. At the present time when controversy is raging round the advisability of precluding medical men from dispensing their own prescriptions it is interesting to notice how completely in older days the value of medicine outweighed the value of the medical adviser's attention in his patient's estimation. By the kindness of Dr. R. P. Smallwood of Little Waltham we have before us a "doctor's bill" of the year 1697. In this foot-and-a-half-long document no mention is made of any visit or consultation. All the fees demanded are for draughts and applications supplied to the patient. The prices for these appear to be high and it may be presumed that the discrepancy between the market value of the drugs and the amounts charged for them is balanced by the uncharged-for visits in connexion with the illness for which the prescriptions were written. Some of the items afford quaint reading by reason of the candid description of their powers contained in the titles of several of the favourite prescriptions in vogue at that date. "Purging potions" and "expulsive powders" figure largely in the list and whilst the nature of these is fairly indicated in their name we are less certain of the direction in which "elixir proprietatis" was intended to work. Apparently the patient of the seventeenth century was content to know the aims of his medicine, though he remained in ignorance of its ingredients. To-day the sophisticated invalid is satisfied with the exact names of the drugs employed, though in complete ignorance of their therapeutical action. His faith is pinned, so to speak, to the blessed word "Mesopotamia"; if he recognises in the prescription the name of the fashionable drug of the hour his confidence in the treatment prescribed is satisfactory. The account of which we are speaking amounted to £38 and our readers will be interested to hear that the patient objected that this was excessive. In the enlightened times of to-day such objections, of course, never arise.

## THE AMBIDEXTRAL CULTURE SOCIETY.

THE syllabus of the subjects to be brought before the Ambidextral Culture Society during the current session seems to give promise of some interesting papers and discussions. On Feb. 10th the honorary secretary read a paper on the Aims and Methods of the Society. The next three announcements are: Ambidexterity in the Infant School, by Miss Margaret McMillan, on March 2nd; Physiology of Simultaneous Ambidextral Work, by the honorary secretary, on March 16th; and two papers on Ambidexterity in Angling, by Captain Hart-Davis and Mr. R. B. Marston, on April 6th. On May 18th Dr. James Shaw will discourse on Ambidexterity from the Medical Point of View. The meetings will be held at the rooms of the Medical Society, 11, Chandos-street, Cavendish-square, London, W., at 5 P.M. each day. The lists of vice-presidents and committee contain numerous names, including those of Lady Florence Dixie, Sir James Sawyer, Mr. E. Noble Smith, and the professors of natural history at the Universities of Edinburgh and St. Andrews. The annual subscription seems to be very moderate. The honorary secretary is Mr. John Jackson, F.E.I.S., St. Dunstan's House, Fetter-lane, E.C. Our readers may recollect that in the Huxley Memorial Lecture delivered at the Anthropological Institute on Oct. 21st, 1902, Professor D. J. Cunningham, speaking on the subject of Right-Handedness and Left-Brainedness, said that man as far back as we can trace was preferentially right-handed. A number of letters on various aspects of the question subsequently appeared in our columns.

## INTERNATIONAL CONGRESS ON TUBERCULOSIS.

BY a committee of organisation appointed for the purpose it has been resolved to organise an international congress which is described as follows: "American International Congress on Tuberculosis, to be held October 3rd, 4th, and 5th, 1904, under the auspices of the Universal Exposition, St. Louis, 1904, and of the American Congress on Tuberculosis." The present officers of the American Congress on Tuberculosis were, with a few changes and exceptions, elected to the corresponding offices in the American International Congress. It was further resolved that the congress should be open to the legal, medical, and all other professions, judges, philanthropists, men of science, statesmen, legislators, and all citizens interested in averting the ravages of the disease, and that they should be invited to coöperate and to become members of the body. Whilst wishing all success to the proposed congress and fully acknowledging the utility of the interchange of ideas between medical men of all nationalities, we are inclined to doubt the wisdom of encouraging a lay element in discussions which partake purely of a technical character. The question of the prevention of pulmonary tuberculosis is a vast one and members of the medical profession are by no means unanimous as to the manner in which prophylactic measures should be carried out. On the other hand, we have frequently laid stress on the importance of instructing the community at large as to the chief means by which infection may be reduced to a minimum. We would venture, therefore, to suggest that there might be two classes of discussions, one purely technical to which only medical practitioners should be invited, and the other of a more general character in which the lay element might with advantage be encouraged. No good could come of individuals joining in, or even listening to, a discussion on vexed questions in connexion with the etiology of tuberculosis but misconceptions might very likely

arise. Whatever steps may ultimately be decided upon in the "fight against consumption," we strongly insist that the opinion of medical men must be paramount and that suggestions arising from those not trained in medical knowledge can only be considered of secondary importance.

## THE AUTO-CAR AS AN AMBULANCE.

IN the opinion of Regimental Surgeon Prévost (*Archives Médicales Belges*) the ambulance of the future will be an auto-car. Over ordinary horse-drawn wagons these cars possess many and great advantages. In the first place, the length of a sick convoy will be diminished by a third, if not a half, and it will travel at a considerably greater speed. Secondly, the occupants of an auto-car ambulance will be spared the jolting and shaking inseparable from horse- or mule-drawn vehicles when starting or halting, as well as those due to restive animals. Thirdly, the provision and carriage of bulky forage will be dispensed with. Against the auto-car can only be urged its cost and liability to go out of order. In a short time both these defects will, it is confidently anticipated, be reduced to a minimum. Another advantage in addition to those enumerated above would consist in the greater cleanliness of the auto car. The dejections of horses and other animals are a fruitful source of complaint if not of disease. It has been calculated by Surgeon Prévost that if auto-car ambulances were to be used exclusively for military hospitals it would be possible to economise 193 men per army corps.

## THE CAMBRIDGE DIPLOMA IN TROPICAL MEDICINE.

IN November of last year the special board for medicine of the University of Cambridge presented a report to the Senate upon a proposal, which had been for some months under consideration, to establish in the University an examination and diploma in tropical medicine and hygiene. The report emphasised the need of greater facilities for the study of tropical diseases and their prevention and the desirability of encouraging practitioners who propose to practise abread to give special attention to the study—a desirability already recognised in other countries. "In Germany and France," says the report, "military, naval, and colonial physicians are now required to attend courses in tropical medicine before taking up the duties to which they are assigned. There are also indications that similar requirements may ere long be enforced as regards medical men desiring to enter the British service abroad. At the present time candidates possessing the diploma in public health are preferred for appointments under the Colonial Office and efforts are being made by the army authorities to insure that military medical officers may be able to acquire the special knowledge and skill implied by the possession of this diploma. Similar considerations apply also to the case of duly qualified medical men who desire to engage in missionary work or to accompany exploring expeditions abroad. The course of study, however, which is appropriate for medical officers of health is far from including all that is necessary for a practitioner in the tropics, while it naturally includes much that has no special relevance to the duties and needs of the latter. In a recent Colonial Office circular it is accordingly proposed that all medical men whose fees are paid by Colonial Governments shall, before proceeding to their appointments, be required to pass an examination or to obtain a certificate of proficiency in tropical medicine. It therefore seems likely that an examination specially designed to meet the new requirements would not only obtain speedy recognition but would also prove of service to students of the subject by establishing a satisfactory standard of attainments and by marking out the proper lines of study. The University already provides facilities for the study of various branches of the subject and these facilities could without much difficulty be extended." The special board for medicine having addressed Mr. Chamberlain and Mr. Brodrick, received from both gentlemen direct encouragement of the idea that the University of Cambridge should institute a test in the knowledge of tropical diseases and hygiene and accordingly came to the conclusion that the University would be performing a public service by adopting the proposal under consideration. The board conferred with the State medicine syndicate and ascertained that that body approved the proposal and was prepared to undertake the management of the scheme and the conduct of the examination and its report was approved by the Senate on Jan. 28th last. The regulations for the examination in tropical medicine and hygiene are very simple. The examination will be held once in the year and any person whose name is on the Medical Register will be admissible as a candidate if a period of not less than 12 months has elapsed between his attainment of a registrable qualification and his admission to the examination. The subjects of the examination will be the nature, incidence, prevention, and treatment of epidemic and other diseases prevalent in tropical countries, and as evidence of study and attainments a candidate may present any record of work done in the field indicated and any diploma of public health or sanitary science. Such evidence will be considered by the State medicine syndicate as a qualification for admission to the examination and will also count in the examination. The examination will comprise the following subjects:—

1. The methods of pathological and bacteriological investigation. The examination of the blood. The characters, diagnosis, and life-history of animal and vegetable parasites. The examination, chemical and microscopic, of poisonous or contaminated foods and waters.

2. The origin, pathology, propagation, distribution, prevention, symptoms, diagnosis, and treatment of the epidemic, endemic, and other diseases of tropical climates, including malaria; blackwater fever; trypanosomiasis; relapsing fever; dengue; yellow fever; plague; tetanus; beri-beri; dysentery and hepatic abscess, cholera, enteric fever, Malta fever, and specific diarrhœal affections of the tropics; diseases due to cestode and other worms; filariasis; bilharzial disease; specific boils, sores, and other cutaneous affections; mycetoma; ophthalmic affections of the tropics; affections caused by poisonous plants and animals and by poisoned weapons; sunstroke.

3. The general effects on health in the tropics of seasons and climate, soil, water, and food. Personal hygiene, acclimatisation. Principles of general hygiene, with special reference to food- and water supplies, sites, dwellings, drainage, and the disposal of refuse. The sanitation of native quarters, camps, plantations, factories, hospitals, asylums, jails, pilgrim and coolie ships. Principles and methods of disinfection.

Every candidate will be required to pay a fee of six guineas before admission or readmission to the examination. We regard the innovation of the University of Cambridge as one of the highest importance.

## THE REVACCINATION BILL, 1904.

THE Revaccination Bill is down for discussion in the House of Commons on April 26th. It is of importance that everyone who wishes to rid the country of small-pox epidemics should do his best at this moment to strengthen public opinion in support of systematic revaccination at school age. The Imperial Vaccination League is distributing copies of a manifesto in favour of revaccination and it is hoped that it will be signed by a very large number of leaders of thought and of social and industrial influence. Medical practitioners will do most useful public work if they will bring this manifesto (of which copies can be had gratis on application to the Secretary, Imperial Vaccination League, 53, Berners-street, London, W.) under the notice of the municipal authorities in their own locality, of ministers of all denominations, of manufacturers, hotel-keepers, tradesmen, and all large employers of labour and will ask them to sign it. The economic loss which results from every epidemic of small-pox is enormous, as is also the

cost of keeping up immense small-pox hospitals. Everyone pays rates and all the expenditure on small pox comes eventually out of the rates. It is therefore everyone's interest to put an end to epidemics of small-pox. The manifesto, which has already several hundreds of important signatures, runs thus:—

Believing that in vaccination and revaccination we possess the best protection against epidemic small pox, I should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors or those who may be for a time excused on the ground of ill health.

## THE HEALTH OF SIR SAMUEL WILKS.

THE many friends of Sir Samuel Wilks will be glad to hear that he is progressing favourably towards recovery from an acute attack of appendicitis which developed on Feb. 5th. Within seven days his condition became so critical that Mr. C. J. Symonds was called in to operate. He opened an abscess and removed the appendix which contained a large concretion and was gangrenous for the space of one inch from its distal extremity. At the commencement of the attack Sir Samuel Wilks was seen by Mr. W. Boulting who summoned Dr. P. H. Pye-Smith. The initial symptoms of the case might have been considered due to renal colic but the appearance in the right iliac region of a tumour which began to get bigger at an appreciable rate cleared up the diagnosis. We are glad to announce that Sir Samuel Wilks is now progressing satisfactorily and it is considered that all danger is over, one feature in the state of the patient especially pointing to a favourable issue being the steady improvement in his general condition for the last four days.

## THE TRAINING OF MIDWIFERY NURSES IN IRELAND AND THE REGULATIONS OF THE CENTRAL MIDWIVES BOARD.

IN an annotation last week (p. 449) we referred to a correspondence between Mr. E. H. Tweedy (Master of the Rotunda Hospital, Dublin) and the secretary of the Central Midwives Board in reference to the two regulations that candidates "must have attended and watched the progress of not less than 20 labours and personally delivered the patient, and, further, must have nursed 20 lying-in women during the ten days following labour." Owing to these two rules nurses trained at the Rotunda Hospital, Dublin, are precluded from qualifying for admission as candidates to the examinations of the Board. We understand that at the request of his colleagues Dr. J. W. Byers, professor of midwifery, Queen's College, Belfast, wrote to the chairman of the Central Midwives Board pointing out that these two regulations would also disqualify midwives trained in the Maternity Hospital, Belfast (where the nurses reside for a period of six months and where they have a similar course of instruction to that of the Rotunda Hospital and are granted a certificate on passing an examination at the end of their training). A reply has been sent to Professor Byers of the same import as that received by the Master of the Rotunda Hospital, that "they [the Central Midwives Board] regret that the suggested alternatives were not brought to their notice before the rules were sent to the Privy Council, as having been now approved by that body it is impossible for the Board to alter them." As a result of these regulations a permanent disqualification is made of midwifery nurses trained not only in Dublin but in Belfast and the rest of Ireland. According to the rules of the Central Midwives Board the certificates as to personal conduction of 20 labour cases and the attendance of a ten days' puerperium are to be signed by a registered medical practitioner or by the chief midwife or matron of an institution recognised by the Board, or in the case of a Poor-law institution by the matron, being a midwife certified under the Midwives Act, or a superintendent nurse certified in like manner and appointed under the Nursing in Workhouses Order, 1897, and attached to such an institution, or by a midwife certified under the Midwives Act and approved by the Board for the purpose. Surely the certificate of the Rotunda Hospital, Dublin, or of the Maternity Hospital, Belfast, is equal to any of these. Further, as everyone knows, it is a common occurrence for a run of 20 normal midwifery cases to occur in succession and so a midwife might actually be able to fulfil the conditions necessary for going on to the examination of the Central Midwives Board and never have been brought in contact with, or recognised, or seen properly managed, such a complication of labour as hæmorrhage or eclampsia. A woman who has resided six months in an Irish maternity hospital would never be in such a position of ignorance. No body has done more to raise the standard of obstetric medicine than the Royal University of Ireland and here is the regulation of the Senate for students on the question of practical midwifery:—

Attendance for a period of six months at a recognised midwifery hospital, containing not less than 15 beds in regular occupation where clinical instruction in midwifery and diseases of women and children is given, or for six months at a midwifery dispensary recognised by the Senate, where similar clinical instruction is given. During this period the candidate is required to attend at least *twenty* labours, of *ten* of which at least he must have had personal charge.

Nothing is here said as to length of attendance during the puerperium and only *ten* cases of *personal* conduction are required, but, on the other hand, a six months' course is specified either at a lying-in hospital or at a midwifery dispensary. Why should the Central Midwives Board adopt a different course in reference to its requirements from pupil midwives? Is what is required from students not enough for midwives? The answer of the Central Midwives Board to those who have protested against these regulations as unfair and as really not giving a guarantee that those fulfilling them have necessarily received a requisite training is, in fact, no reply at all. It simply begs the question and it also (by regretting that the suggested alterations were not brought to its notice before the rules were sent to the Privy Council) admits the justice and fairness of these objections to its rules. To say that it is impossible to alter rules approved by the Privy Council is no argument; the Board might surely ask the Privy Council to change regulations which further experience has shown to be inexpedient.

## YOGA AND HYPNOTISM.

THE practice of yoga, or mystical self-discipline, is common all over India and is undisguisedly advocated by American occultists and, more mysteriously, by their English imitators. From the point of view of scientific psychology the practice is simply a quaint means of inducing the hypnotic state and as such deserves the study of all those medical men who number among their patients hysterical believers in the doctrines of the late Madame Blavatsky. The effect of practising yoga must be at least bad for the nerves and injurious to the still unborn descendants of its practitioners. As described in the Brahmavidyá it consists at present of four species—Mantra-, Laya-, Rája-, and Hatha-yoga. A pious person, possibly an Eidyite, follows Mantra-yoga by repeatedly pronouncing some word and concentrating all his mind upon it. In Laya-yoga all the thoughts are concentrated on one thing or the idea of it, so that we become mystically one with it. Rája-yoga consists in holding the breath and consequently, as the Hindu yogis believe, in controlling the mind. Hatha-yoga is even more frankly hypnotic and its object—concentration—is obtained by sitting for hours in a cramped attitude or simply by squinting. The cramped attitudes of Indian yogis, which are maintained by some during a lifetime, have become proverbial. In a different spirit and in a more graceful manner artists' models may be described as unconscious followers of Hatha-yoga. Trilby was such and her creator,

Du Maurier, had much to say on the subject of mesmerism as induced by posing in one attitude in an artist's studio. Squinting with determination at the tip of the nose is a method much recommended by the yogis who doubtless see nothing comic in the act. But they practise other similar contrivances. The great aim is to hypnotise. Thus English followers of neo-Buddhism have told us that they are in the habit of clearing the mind as far as possible of all ideas or thoughts. Among beginners this is attempted on a fasting stomach for about five minutes before breakfast. It must be an easier process for adepts than for the laity who at most, unlike the little girl in *Punch*, usually think not so much of "nothing" as of "things to think about."

## COMPLIMENTARY DINNER TO MR. TIMOTHY HOLMES.

THE dinner to commemorate Mr. Holmes's retirement after a long period of service as surgeon, and later as treasurer, to St. George's Hospital was attended by a large number of his former colleagues and pupils. Among other distinguished friends besides the staff of the hospital were present the Regius Professor of Medicine at Cambridge (Dr. T. Clifford Allbutt), the Regius Professor of Surgery at Cambridge (Mr. Howard Marsh), and Sir Thomas Smith. The Earl of Cork and Orrery, who presided, proposed Mr. Holmes's health in a speech which recounted the many valuable efforts that he had made in behalf of surgery generally and of St. George's Hospital in particular. Dr. W. Howship Dickinson and Mr. J. Warrington Haward followed with excellent laudatory speeches and Mr. West, deputy treasurer to the hospital, read a long list of those who had sent letters of regret at their inability to be present. Mr. Holmes made a sincere and eloquent reply and after the presentation of an album containing the signatures of all the diners the evening, which had been enlivened also by some capital singing, terminated with a vote of thanks to the chairman.

## THE TRIUMPHS OF SYNTHESIS.

ONE by one certain valuable commercial products are yielding to the analytical observations of the chemist and some day, perhaps, the world may be independent of nature's slow synthetic processes. Not a few people, however, confess to a prejudice in regard to synthetic products and to a preference for the natural article. There would appear to be either some quality missing in the synthetic preparation or else an additional quality which is undesirable; somehow or other it is not exactly the same in its effects it may be or in its appearance or properties. Perhaps there is an element of suggestion or fancy in this matter but for choice we are certain that many would decide in favour of natural indigo for dyeing purposes rather than the synthetic substance, and would prefer the real natural perfume of the flower rather than the synthetic oil, chemically and physically identical though they may be. Certainly in the case of a few substances possessing æsthetic qualities the synthetic product does not appear to give the same gratification. Man may discover how to build the molecular structure but all the same there would appear to be missing something in the architectural *tout ensemble* as nature presents it to us. The natural product may not be so pure but in this very possibility may rest the dignity, beauty, and completeness of the natural structure. Æsthetic qualities, however, do not count for much in the case of more or less coarse goods which answer broadly the purpose of the natural article. Thus could indiarubber be synthesised so successfully as to have the properties of natural rubber no one would doubt that a very useful addition to the necessities of modern life would be made. Indeed, the synthesis of rubber would count amongst the greatest triumphs of chemical science in its application to the elaboration of substances which hitherto have been nature's exclusive production. Amongst the latest synthetic achievements of moment is that of camphor which, it is announced, is now being produced on a commercial scale by a comparatively simple process from turpentine. Turpentine oil is heated with oxalic acid, an oxalate being formed with pinene, the principal constituent of turpentine oil. The oxalic acid effects a further change with the production of a formate which when heated with alkalies yields camphor and carbon monoxide and water. The camphor so made is afterwards sublimed and it condenses in the form of snow-white crystals. It will be interesting to see what effect this synthetic process will have upon the supply of the natural camphor from Japan and, further, whether it will compensate for the reduced output which the war between that nation and Russia must inevitably occasion. Science seems to have anticipated this contingency.

## THE HÆMOSTATIC CONSTITUENT OF THE SUPRARENAL GLAND.

AT a meeting of the Chemical Society held on Feb. 4th Dr. H. A. D. Jowett brought forward the results of his investigations on the chemical nature of the hæmostatic constituent of the suprarenal gland. The work of inquiry was conducted in the Wellcome chemical research laboratories. Previous investigators, and notably the Japanese chemist Takamine, had been able to prepare a crystalline substance from these glands which produced an enormous rise in the blood pressure when injected intravenously. The names proposed for this substance were at first "epinephrine," then "suprarenine," and last by Takamine "adrenaline." Apparently investigations have shown that all three are more or less pure forms of the same constituent and Dr. Jowett has demonstrated that it is probably a catechol derivative with, perhaps, a pyrrol nucleus. The formula now assigned to it is $C_9H_{13}O_3N$. On fusing with potash a substance was obtained giving the protocatechuic acid reaction. Further, it yields trimethylamine and veratric acid when completely methylated and the resulting product oxidised. According to the constitution ascribed to epinephrine it would seem to show an analogy with muscarine and it is significant that amanitine, a fungoid base related to neurine, yields muscarine on decomposition with nitric acid and evolves trimethylamine on heating, which is also yielded by epinephrine, and the constitution altogether is not widely different from the suprarenal principle, assuming Dr. Jowett's view of it to be correct.

## THE GEOGRAPHICAL DISTRIBUTION OF INSANITY IN THE UNITED STATES OF AMERICA.

AN interesting report recently issued by Dr. W. C. White of the Government Hospital for the Insane at Washington, D.C., gives a lengthy account of the geographical distribution of insanity in the United States and its significance. He finds that the proportion of insanity "is highest where there is greatest congestion of population and therefore where the stresses incident to active competition are most severe." This view is generally accepted by alienists in America. While hereditary predisposition is recognised as a leading cause of insanity he believes that a quiet life is a guarantee against mental breakdown as regards some of its forms. On the other hand, the stresses of excessive study, business anxiety, loss of property, domestic calamity, excitement in love, and politics are found to be definite exciting causes of insanity. The tendency to insanity is strong in those who from constitutional predisposition indulge in alcohol for long periods of time. Alcoholic insanity prevails most frequently in crowded industrial centres of population

"where the struggle for income is bitterest." Regarding ethnical conditions the interesting fact is recorded that among the North American Indians insanity is of rare occurrence. This is not because these tribes are exempt from the diseases or the vices of civilisation but because they live an easy-going outdoor life free from care and worry for the future and therefore free from mental overstrain. The negro, says Dr. White, remains sane despite his unhygienic surroundings so long as he remains in the country, his natural home. But when he goes into the Northern States and cities and enters into active competition with the white who is mentally his superior he soon succumbs in the struggle. Thus in Georgia, where the greatest number of negroes are found, there was a ratio of 1 insane negro to 1764 of the coloured population, while in New York the ratio was 1 to 330 or almost exactly the same as for the white population. In Alabama, Arkansas, Kentucky, Missouri, North and South Carolina, Texas, and Virginia the ratio of insanity among negroes is 1 to 1277 as compared with 1 to 450 for the white population. In the industrial States of the East insanity is very common, the ratio being, for example, 1 to 348 of the general population in Massachusetts. These facts, says Dr. White, though in the main well established, are of interest in showing the ill-effects of mental and physical stress in combination with advanced civilisation operating in great cities and centres of population. Dr. White also refers to the question of miscegenation as tending to increase the vulnerability of the coloured races to tabes dorsalis, general paralysis, and other mental and cerebral diseases, a point to which attention was recently drawn in THE LANCET.[1]

## THE AUTOMOBILE SHOW AT THE CRYSTAL PALACE.

THE official show of the Society of Motor Manufacturers and Traders, which opened at the Crystal Palace on Feb. 12th, will remain open until Wednesday, the 24th, and is a remarkable tribute to the energy of the British manufacturer. It is well worthy of a visit by all who are interested in automobilism. Although the show is not confined to the productions of our own country—our foreign competitors being well represented—yet the "all-British" manufactures are assuredly seen to better advantage than on any previous occasion in the history of the motor industry. It is, perhaps, from a national point of view a little disconcerting to learn from the latest return to the Board of Trade that we imported last year no less than £2,000,000 worth of cars and parts and exported only £344,025 worth. To judge, however, from the signs of progress on the part of our home manufacturers which are everywhere in evidence at the Crystal Palace this slight to our national pride will soon be righted. The present show embraces motor vehicles of every description—from the humble motor cycle to the colossal motor omnibus and brewer's dray, with an *omnium gatherum* of the usual "runabouts," broughams, and the more or less luxurious pleasure vehicles. Certainly for the man of means there is no end to the beautifully designed and finished cars, ranging in cost from 500 to over 1000 guineas each; for the man of moderate means there is a still greater though less *recherché* choice; whilst for the man of modest means the prediction that the season of 1904 would see him well catered for is amply fulfilled. It is not within our province to suggest or to recommend individual cars or manufacturers, as obviously the circumstances of varying needs and pecuniary considerations must be important factors in guiding the choice of a vehicle. A visit to the Crystal Palace, however, before the exhibition closes will be an invaluable object-lesson to the intending motorist and also an opportunity to see under one roof what is admitted to be the finest display of automobiles yet held in this country.

[1] THE LANCET, Nov. 7th, 1903, p. 1314.

## MUSCLE AND NERVE RAYS.

THERE would appear to be no longer any doubt that rays are given off by active muscle and nerves, for the observations made by M. Charpentier have been completely confirmed by Dr. Hugh Walsham and Mr. Leslie Miller, who have sent us a communication upon the subject. These gentlemen point out that experiments are remarkably easy to perform and are absolutely convincing as to the actual existence of the rays. These emanations from the human body and their effect upon a fluorescent screen were first observed by M. Charpentier while studying Blondlot's rays (the so called "n" rays). When certain conditions are observed there is no difficulty in obtaining confirmation of M. Charpentier's observations and the most satisfactory procedure is as follows. The screens are prepared with hexagonal zinc blende which is placed in the form of a very thin film on thin paper, gold-beater's skin, or thin celluloid. The screen is excited by exposing it to the ultra-violet rays, sunlight, or, better still, magnesium light. The fluorescent light of the screen is then allowed to die away until it has reached the steady stage. At this point if a muscle in a state of contraction, as, for example, the contracting abductor and adductor pollicis of the thumb, be placed underneath the fluorescent screen it will be seen to brighten perceptibly. We have inspected photographic plates which demonstrate this intensifying effect of muscle and nerve rays upon the fluorescence of the screen.

## BENZENE, A POISONOUS CONSTITUENT OF COAL GAS.

ALTHOUGH benzene would appear to play no part in the poisonous effects of coal gas on man, yet this substance has a very interesting physiological action which indicates the possibility of giving rise to toxic symptoms. In a paper read at a recent meeting of the Royal Society Dr. R. Staehelin presented the results of an investigation of the action of coal gas upon frogs, in which it was shown that when frogs are exposed to coal gas motor phenomena are produced which are absent if the coal gas is previously purified by passage through oil and that these phenomena can be reproduced if the purified gas is made to take up benzene vapour. The investigation had its origin in a recent paper by Vahlen in which it was maintained that a difference exists between the poisonous action of coal gas and of carbon monoxide, and, in the case of frogs at any rate, the conclusion seems now to be that the differences between the effects of carbon monoxide and of coal gas depend on the presence in the latter of benzene. Vahlen stated that warm-blooded animals and frogs die more rapidly in coal gas than would be expected from its percentage of carbon monoxide and also that frogs placed in coal gas present excitatory phenomena which are absent in pure carbon monoxide. In warm-blooded animals the conditions are quite different, experiments showing that air containing a small percentage of benzene had no effects on a guinea-pig, nor was any success obtained in producing either acute or chronic poisonous effects by administering benzene to a rabbit by inhalation. It is suggested that in the case of man the minute quantities which are absorbed by the lungs are rapidly oxidised and excreted as an aromatic sulphate. According to this there would be no reason for supposing that the poisonous effect of coal gas on mammals is determined by anything except the carbon monoxide which it contains. Mr. A. Wynter Blyth, however, in his work on poisons, states that from certain sources of information it is

evident that the vapour of benzene has a distinctly narcotic effect while influencing also in a marked degree the spinal cord, the characteristic symptoms being noises in the head, convulsive trembling, twitching of the muscles, and difficulty of breathing.

## THE NETTLESHIP PRIZE FUND.

To commemorate his work in ophthalmic surgery a gold medal has been established by the friends and pupils of Mr. E. Nettleship, to be awarded periodically for work done in ophthalmology. At its last meeting the medal was handed over to the custody of the Ophthalmological Society of the United Kingdom by Sir Thomas Barlow, representing the subscribers to the fund.

## THE SANDGATE SCANDAL.

THE report of the medical officer of health of Sandgate will not fail, we hope, to attract the attention of the Local Government Board. Sandgate has a population of 1955 inhabitants and consists practically of a long street built by the sea shore. It should be one of the healthiest places in England, but there were last year no less than 64 deaths. The birth-rate is equal to 18·9 per 1000, there being in all 37 births. These extraordinary figures find their explanation within the walls of those so-called sanatoriums which were fully described in these columns and which are run as a money-making business by the too notorious Mr. J. J. Jones.[1] Among the general population of Sandgate the deaths amounted to only 7·1 per 1000, for no less than 50 out of the 64 deaths occurred in the institutions or convalescent homes that abound at Sandgate. Of these, 45 deaths were due to pulmonary tuberculosis, and 43 out of the 45 took place in Jones's homes or "sanitoria." At the Bevan Home 1600 patients have been received during the course of the year and only 16 of these were suffering from pulmonary tuberculosis; one died. But in the Jones's homes no less than 881 patients were suffering from this disease and, as already stated, 43 of them died. Here, then, we have a total of 897 tuberculous patients set down in the midst of a population of 1955 persons, and this in the course of a single year. It must be borne in mind, as we fully explained in our account of Jones's homes, that these are not situated in the outskirts and in the open country but in the very centre and most crowded parts of the town. Further, these patients are not placed under the care of a medical board but the sovereign master and organiser of these homes is a layman who has taken this up as a matter of business and is just as ready to contract for burying the dead as for nursing the living, so long as a profit can be made out of the transaction. Should such trading as this be allowed? Can we afford to sanction such speculation in human misery, and, if so, should it be permitted to continue in the midst of a town? Unwholesome industries are not allowed in towns. Is it a wholesome industry to receive and to crowd together and to make a profit out of 881 persons suffering from pulmonary tuberculosis?

THE medical officer of health of the Cape Colony states that for the week ending Jan. 23rd no case of plague occurred throughout the colony. Plague-infected rats were found at Port Elizabeth and East London, and "one rodent, probably plague infected," was found at Knysna. Of 369 rats examined during the week in the Cape Town and Harbour Board area none was affected with plague. As regards the Mauritius a telegram from the acting Governor, received at the Colonial Office on Feb. 12th states that for the week ending Feb. 11th there were four cases of plague and three deaths from the disease.

THE French National Congress of Gynæcology, Obstetrics, and Pediatrics will take place at Rouen in April. The sittings will begin on Tuesday, the 5th, and terminate on Sunday, the 10th. The secretary of the Congress is Dr. Albert Martin, 6, Place de la Cathédrale, who will be glad to furnish any other information which may be desired.

A MEETING of the Faculty of Medicine of the University of London will be held at the University Buildings, South Kensington, at 5 P.M., to day (Friday), for the purpose of receiving a communication from His Majesty the King concerning the proposed Institute of Medical Sciences.

A GRAND festival dinner will be held to celebrate the centenary of the Royal London Ophthalmic Hospital (Moorfields Eye Hospital), City-road, E.C., in the Grand Hall of the Hotel Cecil on Friday, April 22nd.

"The Medical Aspect of Motoring" is the title of a paper which is to be read at a meeting of the Western Section of the Scottish Automobile Club in Glasgow on March 7th by Professor Hugh Galt, M.B., C.M. Glasg.

# THE LONDON COUNTY COUNCIL: THE MIDWIVES ACT, 1902.

AT the usual weekly meeting of the London County Council held at Spring-gardens on Feb. 9th, Lord MONKSWELL, the chairman, presiding, the general purposes committee brought up a report as to the administration of the Act, the powers under which the Council in December last decided to exercise. The general purposes committee having conferred with the public health and public control committees, recommended that to the order of reference to the public health committee should be added for consideration and report all questions relating to the Act.

Mr. E. A. CORNWALL (vice-chairman of the Council and chairman of the general purposes committee) moved the reception of the report.

Mr. R. MELVILL BEACHCROFT (Paddington North) regretted that the general purposes committee had not considered one matter which was very important in connexion with the administration of the Act and that was whether or not the Council meant to exercise the power that the Act gave to add to the committee people from outside who were versed in the wants of the poorer parts of London, especially women. He doubted whether many members of the Council knew what a very important influence this action might have on future generations of Londoners. The report presented to the committee by the officials of the Council, he believed, indicated that some such action as was here hinted at should take place. He suggested the addition to the recommendation of the committee of the following words: "With instructions to report forthwith whether the Council should be advised to avail themselves of the provisions of the Act which enable them to add to the committee persons, especially women, conversant with the needs of the poor."

Sir HENRY BLISS (Holborn) seconded the amendment.

Mr. CORNWALL was sorry he was not able on behalf of the general purposes committee to accept the amendment. The committee had before it a report which set out that the Council had the power to co-opt members on a special committee for the purpose of carrying out its duties under the Midwives Act, but the public health committee and the general purposes committee after consideration came to the conclusion that it would be undesirable for the Council to adopt such a course as that. On the other hand, they were of opinion that it would be much better to place the administration of the Act, so far as the Council was concerned, in the hands of the public health committee. He did not think the Council was at all likely to agree with the idea or generally to agree with the views of Mr. Beachcroft that they strengthened a committee by adding outside representatives. They must remember that under this Act there was a Central Midwives Board and the Council had not such large and extensive duties as would necessitate the bringing in of outside people. There were councils in

[1] See THE LANCET, August 22nd, 1903, p. 565.

the different parts of the country where it might apply with some force, but in the county of London, as they had done under the Infant Life Protection Act and the Shop Hours Act, they should not depart from their settled policy.

Mr. RUSSELL SPOKES (Walworth) thought that even on the Council itself they might be greatly assisted in many portions of their work by having women members. On boards of guardians and other bodies he had seen good, useful work done by women and this was one instance where he believed it would be exceedingly advantageous if they had women members of the Council. It was not the fault of the Council that they could not have women directly elected to their body. If they could there would be a large majority of members of the Council who would willingly vote for women being enabled to sit as councillors or aldermen. Under the Midwives Act they had power to appoint women and he considered that it should be left to the Council to decide and that they should not content themselves with the adoption of the report of the general purposes committee. The majority of the Council had resolved against co-opting outside and non-elected representatives on their committees, but where they had the opportunity, as under this Act, he thought they should take advantage of their powers and co-opt women exactly in the same way as they decided a few weeks ago that it would be desirable to co opt women on the Technical Education Board. He hoped the Council would not stultify itself and go back on that decision in regard to a matter which so very nearly pertained to the women of the county.

Dr. J. FLETCHER LITTLE (Marylebone East) regarded it as one of the most serious defects of the London County Council that women were excluded from membership and he supported the appointment of women on this committee. There was a great deal of work that women could do very much better than men and the question would continue to come up until it was settled that they might have women elected to the Council.

Lieutenant Colonel ROTTON (Clapham) remarked that if ever there was a committee where the de-irability of co-opting women existed it was undoubtedly this one. Fortunately they had a number of medical men on the Council, but the majority of the members were incapable of arriving at a satisfactory decision in regard to certain delicate points which would have to be settled by this committee. He therefore hoped that they would take advantage of the powers conferred upon them by the Act and co-opt a number of women.

Sir WILLIAM J. COLLINS (St. Pancras West) was in favour of women being eligible for election to the Council and if that measure were adopted they would naturally find their places on the appropriate committee where he was sure they would render valuable assistance to London. In regard to the particular question before them it was hardly desirable to carry the amendment in view of the fact that if the public health committee found it necessary to call women to their assistance no doubt it would bring up a recommendation to that effect at the Council. Not only would the amendment add women to the public health committee for this particular purpose but it would complicate the whole way the committees of the Council were worked. He was sure the chairman of the public health committee would be able to get any expert assistance, either male or female, to make this Act a success.

Mr. G. H. RADFORD (Islington West) said that if Mr. Beachcroft would alter his amendment so that the power of co option should be limited to women he thought he would find a large measure of support on the Council. He desired, however, to distinguish between this Act and the Education Act because in appointing women under the Education Act they acted under *force majeure;* they were required by law to appoint them. They were not so required here but they would do wisely if they did so.

Mr. G. J. COOPER (Bermondsey) (chairman of the public health committee) said that the matter had been before his committee and they were unable to see their way to suggest that women should be added to the committee. When the committee had the opportunity of considering what should be done and how the Act should be administered it was quite possible that they would bring up to the Council a motion directly dealing with the subject and this would enable Mr. Beachcroft to have a distinct vote—yea or nay. It was purely a question of administration. He knew there were members of the committee who were very sympathetic, who had not the slighest hostility to women helping the administration of the Midwives Act, but how it was to be done must rest with the committee. The committee would consider it and bring up a report on the whole question which would give the Council an opportunity of coming to some definite decision upon it.

On a show of hands there voted: for the amendment, 32; against, 27; majority for the amendment, 5.

The recommendation of the committee, with the addition proposed by Mr. Beachcroft, was then put as a substantive motion and unanimously adopted.

# Looking Back.

FROM

## THE LANCET, *SATURDAY*, FEB. 18, 1826.

### FOREIGN DEPARTMENT.

*Graefe and Walther's Surgical and Ophthalmological Journal.*

*On the Antiquity of Diseases of the Bones.*

By PH. V. WALTHER.

IN examining an extensive collection of fossil bones, the remains of an extinct species of bear, Prof. Walther's surprize was not a little aroused by the quantity which he observed to be diseased. Among the number is,

1. A very perfect specimen of internal necrosis of the right thigh bone: the head, neck, both trochanters and articulating surfaces of the knee are healthy, all the rest of the bone is spongy and swollen; there are three principal entrances into the cloaca, in which the sequestrum still remains firmly fixed.
2. Two dorsal vertebræ anchylosed.
3. A lumbar vertebra, affected with caries.
4. Several lower jaw bones in a state of caries.
5. A radius, covered with exostoses; in short, examples of all the ordinary forms of disease which attack bone. So that the bears, at least, of an antediluvian world, would seem to have suffered from necrosis, inflammation of the bones, toothache, ending in caries of the alveolar processes, and diseases of the joints, followed by anchylosis, and doubtless, if their bones suffered, their soft parts did not escape. Dulce est socios habuisse malorum. We suppose, at intervals, that we discover hitherto unendured maladies; but nature, even in departing from her beneficence, appears to be governed by invariable laws. Here we have evidence of the same diseases that now occur, having afflicted the beings of creation which existed many thousand years ago, which probably inhabited the earth before man had asserted his supremacy.

### HOSPITAL REPORTS.

#### GUY'S HOSPITAL.

*Contagious nature of Erysipelas?**

A female, labouring under ascites, had been for some time under the care of Dr. Bright, in Charity Ward, when, on February 1st, the operation of paracentesis abdominis was performed; a severe attack of erysipelas ensued, which, occurring in a constitution previously broken up by disease, proved fatal on the third day. A young woman is in the same ward under the care of Mr. Bransby Cooper, with an ulcer of the leg; her general health remarkably good. Being of the same religious persuasion as the poor woman who died, (namely Catholic,) she rushed from her bed, and in her "last moments" hung over and clasped the body of the dying patient. On the same morning this young woman sickened; she was attacked with rigors and nausea and on the following day there was an extensive erysipelatous inflammation of the leg on which the ulcer is situated, extending up the thigh. Constitutional symptoms have since run very high, and the disease has well nigh proved fatal.

* An interesting paper on this subject was written some years since by Dr. Wells, and may be found in Vol. II. of the "Transactions of a Society for the Improvement of Medical and Surgical Knowledge."

# TESTS OF CERTAIN OPEN DOMESTIC GRATES.

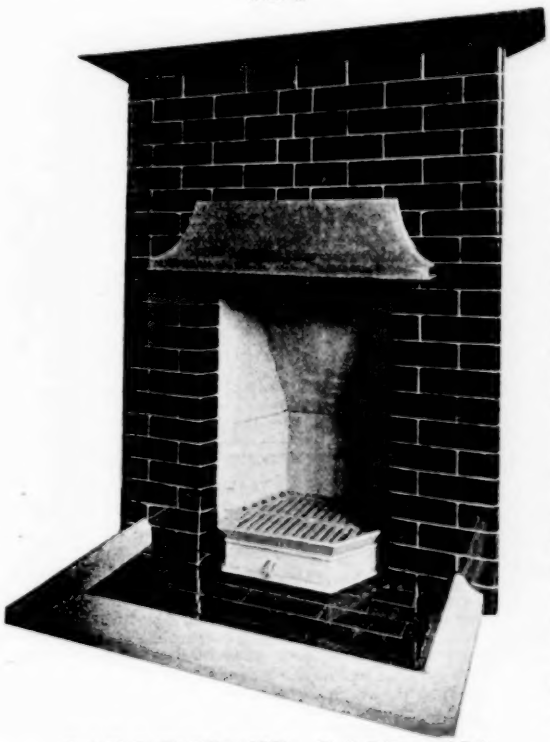
REPORT BY THE COAL SMOKE ABATEMENT SOCIETY.

In the summer of the year 1901 a series of tests was made under the supervision of the Coal Smoke Abatement Society on six domestic open grates. The results, which were published in THE LANCET of May 10th, 1902, p. 1342, and afterwards in a special report, clearly demonstrated that there is a remarkable difference in effectiveness and economy between the numerous types of grates which are claimed to be "smokeless," "smoke consuming," or "smoke preventing." It was further shown that it is quite possible to produce a grate combining heating power and economy of fuel with a comparative freedom from emission of smoke so frequently associated with the use of ordinary household coal.

Since this series of tests was made the society has been on different occasions requested to investigate the claims of other grates, but until recently no opportunity of doing so recurred. In the winter of 1902–03, however, an exhibition of grates and other matters was held at the Crystal Palace and the society offered a prize or certificates in respect of such open grates burning ordinary bituminous coal as should in the opinion of a jury show substantial absence of smoke effectiveness of heat production and economy of fuel, in addition to the usual qualifications of a sitting-room grate.

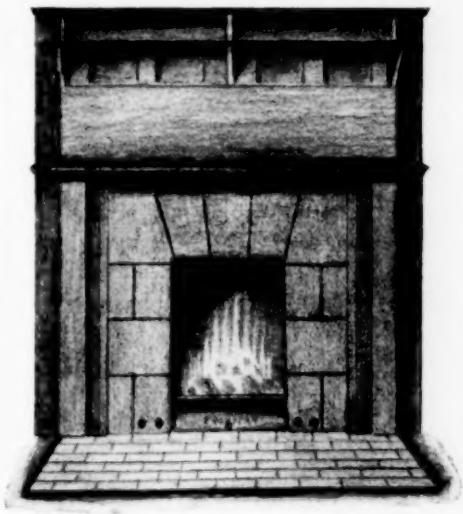
A jury was appointed by the society consisting of members of the council as well as of gentlemen possessed of technical knowledge but having no connexion whatever with the society. Rules were drawn up for the conduct of the tests. These rules were designed to secure that the tests should be exactly of the same nature for each competitor. A sitting-room on the ground floor of a building in Delahay street, Westminster, was placed at the disposal of the society by the courtesy of H.M. First Commissioner of Works and Public Buildings. The size of the room selected was 21 feet 6 inches by 14 feet 6 inches by 10 feet 6 inches, and in order to ascertain the comparative heating power of the grates it was arranged that each grate should be worked so as to maintain the temperature of the air in the room at 20° F. above that of the outside air. The two glass windows in the room were accordingly kept shut as was an ordinary door giving access to a small passage opening into the street. The street door also was, whenever possible, kept shut and as the chimney was 69 feet high an ample draught was obtainable.

FIG. 1.



Grate No. 1. The "Heaped" Fire. (Bratt, Colbran, and Co.)

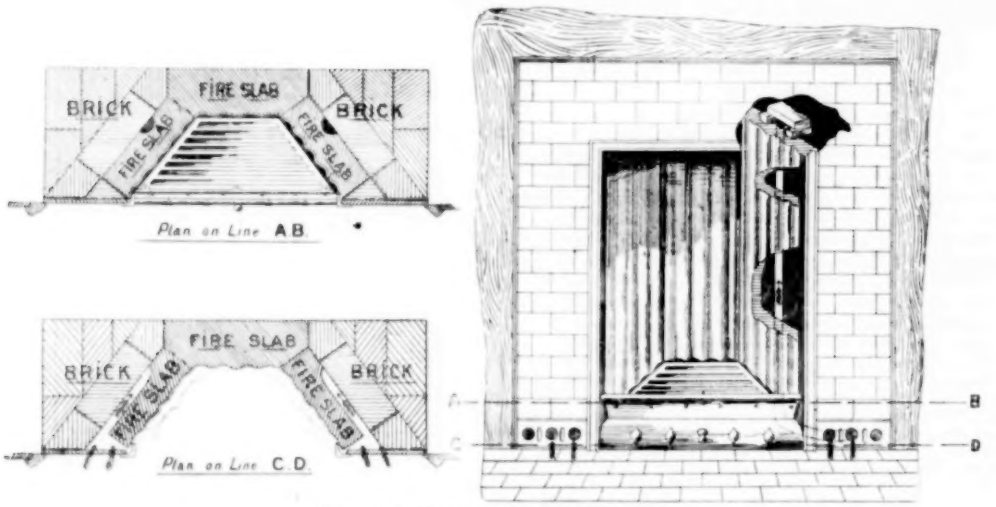
FIG. 2.



Grate No. 2. The "Tropican." (Chavasse and Kerr.)

The jury met at the Crystal Palace and selected certain stoves as appearing most likely to satisfy the conditions imposed and the grates so selected were fixed in position by the exhibitors who each gave written directions as to the manner in which the grates were to be treated but who, by arrangement, were not present during the trial. The tests of each grate were continued for a period of three days. The actual tests were carried out by an assistant acting under the direction of the jury. He was supplied with scales for weighing the coal used and thermometers for indicating the temperature of the air in the apartment and also of that in the hall outside. He was instructed to light the fires at 9 A.M. in accordance with the written directions of each competitor and to urge the fire until the thermometer, suspended in the middle of the room from the ceiling, showed a temperature of 20° F. above that of the air in the hall outside and so to regulate the fire as to keep the heat up to that point during the day. The coal and wood used were carefully weighed and the amount recorded and the time of each stoking noted. At 5 P.M. each day the fire was drawn and, when cold, the unburnt cinders were weighed and the amount deducted from that of the coal put during the day on the fire. Throughout each day another assistant in an upper room of a house on the opposite side of the street at an angle of about 30° from the top chimney and about 35 feet away, commanding a clear view of the chimney which carried the smoke of the stove under investigation, was directed to observe the intensity of the smoke. The amount of smoke emitted was carefully recorded on a chart every five minutes by means of the series of smoke tints designed by the late Mr. Bryan Donkin. There was no communication between the two assistants and members of the jury visited the respective

FIG. 3




Grate No. 2. The "Tropican." (Chavasse and Kerr.)

rooms from time to time to satisfy themselves that the tests were being carefully carried on and the results correctly noted.

On the completion of the tests, which together occupied some weeks (one week being devoted to the setting, testing, and removal of each grate), the results of the observations were carefully tabulated and are now published as an appendix to this report. The amount of smoke emitted from the chimney was averaged. The amount of coal consumption in each case was also carefully averaged and the results arrived at are shown upon the plotted diagram. This diagram, therefore,

FIG. 4.

Grate No. 3. "Patent Grate." (Landers, Limited.)

shows at a glance the relative performance of each of the grates in respect of coal burnt, heat generated, and smoke consumed. Taking these three factors into account the jury had no difficulty in placing the competitive grates in the following order of merit:—

1. The Tropican Grate—Messrs. Chavasse and Kerr.
2. Messrs. Landers' Grate.
3. The "Heaped" Fire—Messrs. Bratt, Colbran and Co.
4. The Francombe—Messrs. Clark, Hunt, and Co.

On the whole, it will be seen that the tests now concluded by the society show a distinct advance in the construction of grates calculated to diminish smoke. It is clear that if a market can be created for grates which will minimise the smoke nuisance such grates will be forthcoming. On the other hand, it is obvious that much of the smoke pollution caused by household fires is the result of careless or inefficient stoking. A fire is allowed to burn low and is then made up by a large amount of coal which cannot speedily ignite and which gives off quantities of smoke.

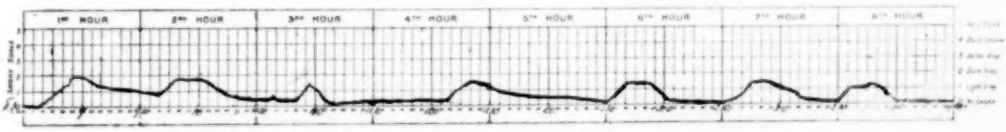
FIG. 5

Grate No. 4. Francombe's "Warm Air" Slow Combustion. (Clark, Hunt, and Co.)

A certificate was awarded by the Coal Smoke Abatement Society to the successful competitors indicated in the foregoing list of the order of merit. In this certificate the society certifies that on a series of tests conducted by the society and on a comparison between the grates entered for

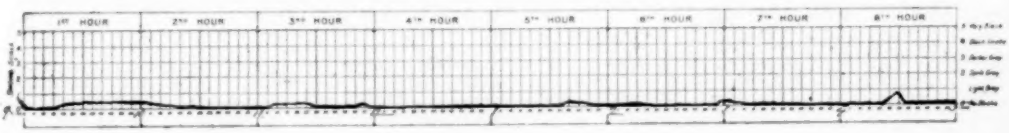
PLOTTED DIAGRAMS OR CHARTS OF DEGREES OF INTENSITY OF SMOKE ON TIME BASIS. THE FIGURES BELOW SHOW THE TIME IN HOURS AND MINUTES ACCORDING TO THE SYSTEM OF THE LATE BRYAN DONKIN

CHART 1.



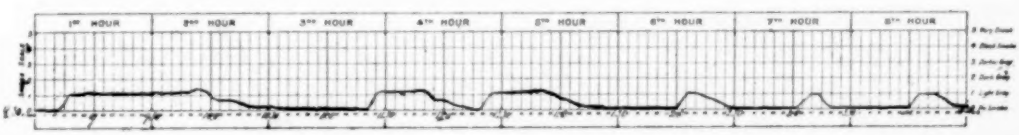

The "Heaped" Fire.

CHART 2.



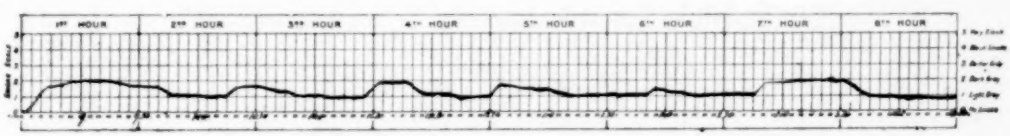

The Tropican Grate.

CHART 3.




Messrs. Landers' Grate.

CHART 4.




The Francombe

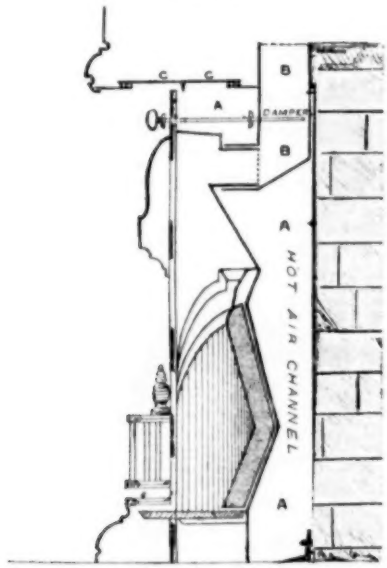
competition being made it was found that the Tropican grate showed the best results in the diminution of smoke, the heating power of the grate, and the economy of fuel. This certificate is signed by W. B. Richmond, president; H. A. Des Vœux, honorary treasurer; Owen B. Thomas, honorary secretary; and Lawrence W. Chubb, the secretary of the society.

In conclusion the Coal Smoke Abatement Society desires to record its indebtedness to the jurors who conducted the tests and to Mr. R. Bailey, controller of the stores at H.M. Office of Works and Public Buildings, whose services rendered the experiments possible, and to Sir Schomberg McDonnell, secretary to the Commissioners of H.M. Office of Works, for granting the society permission to conduct the tests in a building under the control of his department.

*Grate No 1.*[1]—The "Heaped" Fire (patent). This grate

[1] The descriptions of the grates are those supplied by the manufacturers.

FIG. 6.

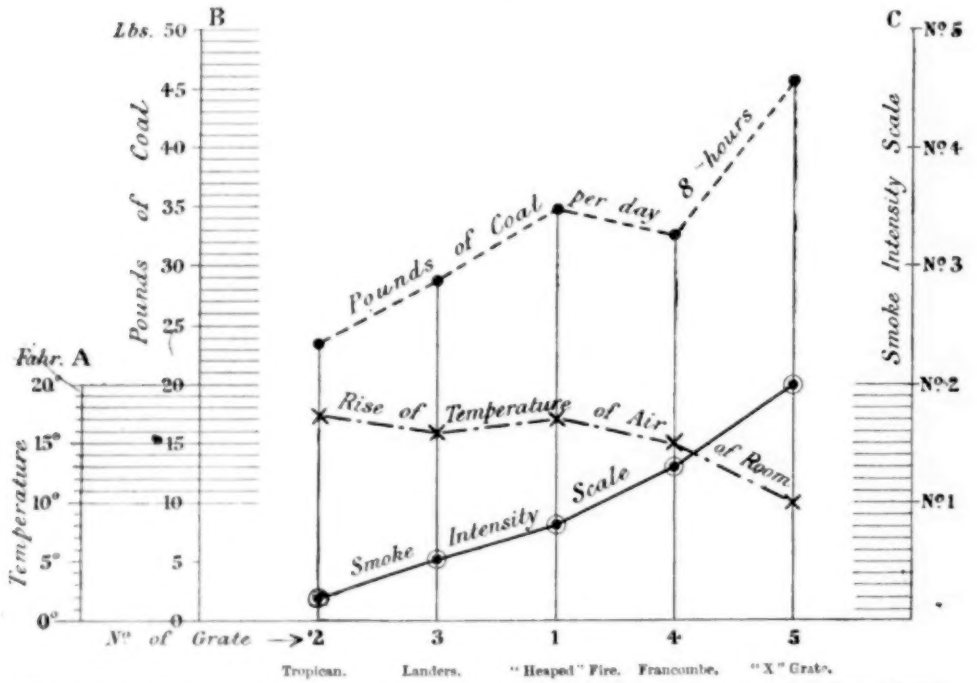



Grate No. 4. Francombe's "Warm Air" Slow Combustion. (Clark, Hunt, and Co.)

is constructed almost wholly of firebrick, the only metal used being a raised portable cast-iron bottom grating which is set on the hearth and permits of the ashes being taken away with the greatest ease. The fire is not sunk but is in full view, being only from two to three inches above the level of the hearth so that the whole of the heat is free to radiate directly into the room. No underground channels for admission of air are necessary. The stove is simple in construction, easily fixed, and simple and clean in use. No poker is required. It is so made that it can be front fed on the principle of a boiler furnace and thus consumes to a large extent its own smoke. It has no front bars to support the fuel, the latter being heaped against the back brick. This arrangement prevents the coal falling into the hearth which remains perfectly clean all day long. An economiser is provided to regulate the draught and when closed makes a slow combustion stove. The fire is so constructed as to create a draught suction not obtainable in any other stove, insuring a steady incandescent fire, perfect combustion, and therefore an almost certain cure for smoky chimneys. It is also suitable for burning anthracite coal.

*Grate No. 2*.—The Tropican grate (patent) The proprietors of this grate are Messrs. Chavasse and Kerr, Birmingham. The backs are of firebrick, usually with a corrugated front, and of vertical construction. The fire rests on a metal bottom, raised above the hearth, so that the heat may not be lost by conduction under the floor, and the ashes can be removed without extinguishing the fire. The bottom is so constructed that by means of a detached shutter the air can be entirely prevented from passing through the fire. To overcome the stagnation which would naturally ensue a suction draught is introduced into the chimney through narrow passages formed in the firebrick. The air passing up these passages is heated by coming in contact with the firebrick and is thus rarefied. The motive in this arrangement is to attain a more complete surface combustion and to

FIG. 7.




Plotted results of tests on domestic open fire-grates used successively to heat the same room. A, Temperature in degrees Fahrenheit. The middle line (rise of temperature &c.) is plotted from this column. B, Weight of coal consumed. The upper line (pounds of coal, &c.) is plotted from this column. C, Smoke intensity scale. The lower line of the same name is plotted from this column. A, B, and C respond respectively to columns 7, 2, and 9 of Table I.

(The results of a grate "X," working badly under the conditions of the tests, are also added in column 5, but this stove is not described in the report.—ED. L.)

reserve and to utilise all the front heat generated in the fire for radiation, while a small quantity of heat behind, which would otherwise be wasted, suffices to stimulate a steady and reliable draught from the room through the chimney. A large radiating surface is employed and canopies are discarded as unnecessary where this system is applied, there being no trouble from smoke. The inventors claim that canopies are most detrimental to the heating power of any grate and the choice in grates where they are found necessary is generally between a cold room and a smoky one. The fire in the Tropican grate maintains for many hours a brilliant and glowing heat without perceptibly wasting away.

*Grate No. 3.*—Messrs. Landers, Limited, thus describe their stove: "With reference to the grate fixed at Delahay-street we sent round one of our ordinary grates with fire lumps made of the best Stourbridge fire-clay which were cased in steel. Over the fire was fixed a self balancing register door to prevent as much of the smoke from getting away into the chimney as possible. The smoke then passed into a chamber which was again made to prevent the smoke passing away. (The construction of this chamber is now a matter which we are patenting shortly, so we hope you will excuse us not giving you any further information about the same.) The warm air was discharged through a valve at the top of the stove. We may say that the grate sent to D.-street has never been beaten in any competition as regards heating capacity and coal consumption; in fact, some of our largest jobs have been won by competition. (In these competitions all the grates are tested on the same day.) We expect you have had a difficult job to arrive at the result of the competition owing to the great difference in the weather, but we consider the clerk of the weather might have treated us a little more leniently and given us one day clear of the gale. We wish the successful firm every success and only ask you one favour—that is, when you publish the results, please mention that our grate was tested at the time when the gale of 1903 was in full force, and our friends will know that we had a little misfortune against us."

*Grate No. 4.*—Francombe's Warm-air Slow-combustion Stove has almost exactly the appearance of an ordinary register stove with or without tile sides, but it is in reality very differently constructed. To the "outer front" a metal (sheet iron or otherwise) casing is attached and the "interior" of the stove stands loosely within this, a space being left between the two to form a warm-air chamber, or rather channel A A A. This "interior" is of stout cast iron with usual firebrick back and sides to fire, the back brick slanting slightly forward. The bottom of the stove tested was an iron grating but this is sometimes made of solid firebrick. The bars of the stove tested were vertical and the fire was 15 inches wide. Immediately behind the canopy, a short distance above the fire, the "interior" terminates with a horizontal nozzle which fits closely into a short flue-pipe B B attached to the metal casing. A damper is provided for checking the draught as may be desirable in the flue-pipe. The space immediately above the "interior" and around the flue-pipe is closed by a cast-iron soffit plate attached to the outer front and to the top edges of the metal casing or "jacket." In this plate is a soot door C C for access to main chimney. For sweeping the chimney or cleansing the air chamber the "interior" is drawn right out. It is not intended that the air chamber shall be connected with the outer air. The stove tested is 38 inches wide by 38 inches high and can be fixed in any ordinary brick opening having a depth of about 14 inches.

TABLE I.—SUMMARY OF TESTS ON FOUR DOMESTIC OPEN FIRE GRATES, WITH THE QUANTITY OF COAL BURNT, THE TEMPERATURE OF THE ROOM, AND THE SMOKE OBSERVATIONS MADE, DURING THE MONTHS OF FEBRUARY AND MARCH, 1903, ALL USED (ONE AFTER THE OTHER) FOR HEATING THE SAME ROOM AND BURNING THE SAME SMOKY COAL. MEAN RESULTS OF THREE DAYS' TESTS ON EACH GRATE FOR EIGHT HOURS EACH DAY.

| (1) Name and number of grate. | (2) Amount of dry coal burnt (minus cinders, plus half the weight of wood for lighting) in eight hours in pounds. | (3) Amount of the ashes left in the grate at end of the day in pounds. | (4) Average number of stokings per day of eight hours. | (5) Mean temperatures of the air in degrees Fahrenheit. (a) In the hall. | (6) (b) In the room. | (7) (c) Difference between (a) and (b) | (8) (d) In another part of the room. | (9) Degree of smoke by smoke scale or average intensity by observation. Mean three days. |
|---|---|---|---|---|---|---|---|---|
| Tropican—No. 2 (Chavasse and Kerr) ... ... ... ... ... ... ... | 26·66 Coal.<br>− 3·41 Cinders.<br>23·25<br>+ 0·312 Wood.<br>23·562 Total. | 1·06 = *4·5% | 5·33 | 54·37 | 71·68 | 17·31 | 71·66 | ¼ |
| Landers'—No. 3 ... ... ... ... ... ... | 32·00 Coal.<br>− 3·50 Cinders.<br>28·50<br>+ 0·375 Wood.<br>28·875 Total. | 1·41 = *4·9% | 6·33 | 52·13 | 68·07 | 15·94 | 67·87 | ½ (fully) |
| Bratt, Colbran, and Co.—No. 1 ... | 36·33 Coal.<br>− 1·80 Cinders.<br>34·53<br>+ 0·437 Wood.<br>34·967 Total. | 1·06 = *2·13% | 6·0 | 46·64 | 63·33 | 16·69 | 63·37 | ¼ |
| Francombe's—No. 4 ... ... ... ... ... | 34·66 Coal.<br>− 2·43 Cinders.<br>32·23<br>+ 0·375 Wood.<br>32·605 Total. | 1·10 = *3·37% | 5·6 | 49·09 | 64·05 | 14·96 | 63·35 | 1¼ |

*Percentage amount of ashes to total amount of coal − cinders + half wood.

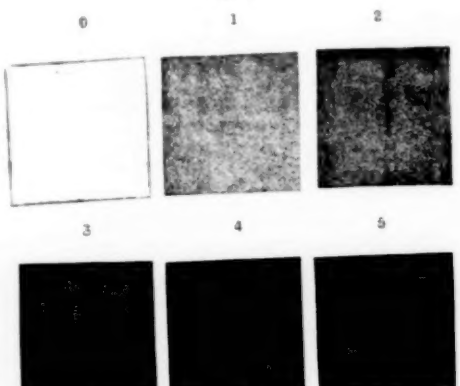
TABLE II.—TESTS ON FOUR DOMESTIC OPEN GRATES. DETAILS OF SMOKE OBSERVATIONS. SEE SMOKE SCALES 0 TO 5 OBSERVATIONS EVERY FIVE MINUTES DURING EIGHT HOURS = 96 PER DAY. 15 DAYS' TESTS, BURNING THE SAME COAL AND HEATING THE SAME ROOM. MAXIMUM SMOKE AT LIGHTING UP AND AFTER EACH STOKING. MILD WINTER WEATHER, FEBRUARY AND MARCH, 1903.

| Number of grate. | Name of maker, &c. | Date of test and number of hours. Date. | Hours. | Number of smoke chart. | Smoke results, Nos. 0 to 5 smoke scale. Mean for the whole day. | Lighting up only. | Maximum during the whole day. | Minimum during the whole day. | Other notes on smoke. | Mean for the three days of each grate (Column 6). |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1903 | | | | | | | | |
| No. 1. | "Heapel," Messrs. Bratt, Colbran, and Co. | Feb. 2nd. | 8 | 1 | $\frac{8}{10}$ | ¼ to 1½ for half an hour. | 2 | 0 to ¼ for one and a half hours. | Zero at end of day. | $\frac{9}{10}$ |
| | ,, ,, | 3rd. | 8 | 2 | $\frac{9}{10}$ (fully). | ,, | 1·9 | 0 to ¼ for two and a half hours. | ,, | |
| | ,, ,, | 4th. | 8 | 3 | $\frac{9}{10}$ | ¼ to 2 for 40 minutes. | 2 | 0 to ¼ for one and a half hours. | ,, | |
| No. 2. | "Tropican," Messrs. Chavasse and Kerr. | Feb. 10th. | 8 | 4 | $\frac{1}{10}$ | ¼ to ½ for one hour. | ½ | 0 to ¼ for seven hours. | No smoke for four and a half hours. | $\frac{2}{10}$ |
| | ,, ,, | 11th. | 8 | 5 | $\frac{2}{10}$ (fully). | ¼ to ¾ for one and a quarter hours. | ¾ for half an hour. | 0 to ¼ for three and three-quarter hours. | Seven times almost zero. | |
| | ,, ,, | 12th. | 8 | 6 | $\frac{1}{10}$ (fully). | ¼ to 1 for one and a quarter hours. | 1 for 45 minutes. | 0 | No smoke for four and a half hours. | |
| No. 3. | "Patent Grate," Landers, Limited. | Feb. 23rd. | 8 | 7 | ½ (fully). | ¼ to 1¼ for one and a quarter hours. | 1½ six times for a few minutes. | ¼ to ¼ for three and a half hours. | Zero at end of day only. | ½ (fully). |
| | ,, ,, | 24th. | 8 | 8 | ½ ,, | ¼ to 1½ for one and a half hours. | 1½ three times for a few minutes. | ¼ to ½ for three and a half hours. | No smoke for a few minutes. | |
| | ,, ,, | 25th. | 8 | 9 | ½ ,, | 1¼ to 1 for one hour. | 1½ three times for a few minutes. | 0 to ¼ for three and a half hours. | Zero at end of day. | |
| No. 4. | Francombe's "Warm-air" slow-combustion stove, Clark Hunt, & Co. | March 2nd. | 8 | 10 | $1\frac{1}{10}$ | 1 to 2 for one hour. | 2 twice for quarter of an hour each. | ½ at end of day for half an hour. | 1 for about three hours. | $1\frac{1}{10}$ |
| | ,, ,, | 3rd. | 8 | 11 | $1\frac{1}{10}$ | 1 to 2 for three-quarters of an hour. | 1¾ four times for a few minutes. | ½ ,, ,, | 1½ six times for half an hour each. | |
| | ,, ,, | 4th. | 7½ | 12 | $1\frac{1}{10}$ (fully) | 1 to 1¾ for 40 minutes. | 1¾ ,, ,, | ½ ,, ,, | 1¼ six times for half to quarter of an hour. | |

TABLE III.—*Meteorological Readings (taken daily at 8.30 a.m. by Steward's Instruments).*

| Date. | Barometer reduced to sea level and 32° F. | Direction of wind. | Rainfall. | Solar radia in vacuo. | Maximum temperature in the shade. | Minimum temperature. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|
| 1903. | | | | | | | |
| Feb. 2nd. | 29·82 | N.W. | 0·05 | 63 | 43 | 33 | Overcast. |
| ,, 3rd. | 30·28 | W.S.W. | 0·01 | 55 | 49 | 35 | ,, |
| ,, 4th. | 30·37 | W. | ... | 53 | 50 | 40 | ,, |
| ,, 10th. | 30·59 | S.W. | ... | 77 | 56 | 51 | ,, |
| ,, 11th. | 30·49 | S.W. | ... | 77 | 56 | 46 | ,, |
| ,, 12th. | 30·29 | N.N.W. | ... | 75 | 53 | 46 | Fine. |
| ,, 23rd. | 29·69 | S.W. | 0·11 | 77 | 55 | 45 | Overcast. |
| ,, 24th. | 29·96 | S.W | 0·01 | 66 | 50 | 36 | Fine. |
| ,, 25th. | 29·78 | S.W. | 0·09 | 89 | 54 | 43 | ,, |
| March 2nd. | 29·31 | S.W. | 0·08 | 67 | 51 | 38 | Raining. |
| ,, 3rd. | 29·04 | N.W. | 0·39 | 62 | 43 | 41 | Overcast. |
| ,, 4th. | 29·82 | S.W. | 0·02 | 71 | 56 | 37 | ,, |
| ,, 16th. | 29·64 | W. | ... | 90 | 53 | 40 | Cloudy. |
| ,, 17th. | 29·82 | S.W. | 0·02 | 70 | 52 | 41 | ,, |
| ,, 18th. | 29·62 | N.W. | 0·15 | 89 | 53 | 44 | Overcast. |

FIG. 8.




Diagrams of smoke scale 0 to 5 (see also charts). 0, no smoke; 1, light gray; 2, darker gray; 3, very dark gray; 4, black; 5, very black.

# ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Feb. 14th, Mr. JOHN TWEEDY, the President, being in the chair.

The following report regarding the proceedings of the Central Midwives Board from Dr. J. Ward Cousins was received and entered on the minutes:—

I have the honour to present to you a short statement of the work of the Central Midwives Board during the past year. 22 meetings have been held and also many other meetings of committees which were duly appointed by the Board. The first meeting of the Board was held on Dec. 11th, 1902, and the last meeting took place on Jan. 28th, 1904.

The preliminary business consisted in framing rules in accordance with Section 3 of the Midwives Act of 1902 and this important work occupied many meetings and caused considerable discussion. As soon as the report of the majority of the Board was completed it was forwarded to the Privy Council together with another report prepared by a minority of the Board.

The present rules sanctioned by the Privy Council are the outcome of these two reports and they are arranged in the following sections: 1. Rules regulating the proceedings of the Central Midwives Board. 2. The conditions of admission to the roll of midwives and the issue of certificates. 3. The course of training and the conduct of examinations. 4. The admission to the roll of women already in practice as midwives at the passing of the Act. 5. The supervision and restriction within due limits of the practice of midwives. 6. The conditions under which midwives may be suspended from practice.

The attention of the Board was next directed to the preparation of other important details: 1. Suggestions to county and county borough councils in reference to the duties assigned to them under the Midwives Act. 2. Special rules of procedure for the removal of a name from the roll and the cancelling of a certificate. 3. Other rules of procedure respecting the restoration to the roll of a name previously removed.

The first roll of midwives was opened in November, 1903, and it records the names of the midwives who have been accepted by the Board under Section 2 of the Midwives Act. The following table indicates the number of midwives certified up to date:—

| | | |
|---|---|---|
| Women holding certificates from institutions specified in Section 2 of the Midwives Act. | London Obstetrical Society | 468 |
| | Rotunda | 27 |
| | Coombe | 1 |
| Women holding certificates from bodies not specified in Section 2 but approved by the Board. | Queen Charlotte's Hospital | 26 |
| | St. Mary's Hospital, Manchester | 22 |
| | Glasgow Maternal Hospital | 19 |
| | Liverpool Lying-in Hospital | 3 |
| | City of London Lying-in Hospital | 1 |
| | Edinburgh Royal Maternity | 1 |
| | Salvation Army Maternity | 2 |
| | Manchester Southern and Maternity Hospital | — |
| | British Lying-in Hospital | — |
| Women certified as having been in *bonâ fide* practice at least one year before 31st July, 1902. | | 1079 |
| | Total certified | 1649 |

The regulations respecting the course of training and the conduct of examinations have not yet been completed. The following training institutions have been already accepted by the Board under Section C of the rules: Queen Charlotte's Lying-in Hospital; Liverpool Ladies' Charity and Lying-in Hospital; Manchester Southern and Maternity Hospital; British Lying-in Hospital; Newcastle-on-Tyne Lying-in Hospital; General Lying-in Hospital, Lambeth; Glasgow Maternity Hospital; Dundee Maternity Hospital; District Nursing Association, Cheltenham; Maternity Charity and District Nurses' Home, Poplar; National Maternity Hospital, Dublin; Edinburgh Royal Maternity Hospital; City of London Lying-in Hospital.

An unforeseen difficulty has recently arisen between the Irish Training Institutions and the Central Midwives Board respecting the certificates which must be produced before a candidate can be admitted to the Board examination. The rules under Section C make it compulsory that every woman shall have personally conducted 20 labours and also nursed 20 lying-in women during ten days following labour.

On behalf of the hospitals, such as the Rotunda and the Coombe, in Dublin, it is stated that the medical staff of these institutions are unable to arrange that every midwife pupil should personally attend 20 cases of labour, as this would necessitate doubling the size of the hospitals and increasing the number of patients. It is also equally impossible to enable every midwife pupil to nurse 20 patients for ten days following labour, as nearly all the women leave the hospital on the eighth day and refuse to remain longer, even when the medical officers are anxious to detain them.

Now these regulations are scarcely fair to the Irish midwifery institutions and a solution of the difficulty could easily be secured (1) by a modification of the regulations of admission to the examination; or (2) by accepting the six months' training in the wards of the hospitals and the long course of instruction conducted by the staff, as equivalent to the three months' midwifery tutelage required by the Central Midwives Board.

At a recent meeting of the Board two important and conciliatory communications were read from the Irish hospitals, but the majority of the Board declined to consider any alteration of the existing rules and therefore it is probable the matter will be referred for the decision of the Privy Council.

The appointment throughout the country of local bodies for carrying out the Midwives Act is a very hopeful and practical method, but up to the present time very little has been reported to the Central Midwives Board to indicate the progress of the work. The supervision of midwives is everywhere in the hands of local supervising authorities; but it is quite certain that effectual supervision and the successful operation of this Act must in a great measure depend upon the cooperation and assistance of the medical men practising within the area.

I am, Mr. President and gentlemen,

Yours very faithfully,

JOHN WARD COUSINS.

The best thanks of the council were given to Dr. Cousins for his services as the representative of the College on the Central Midwives Board.

A letter was read from Dr. E. Liveing reporting the proceedings of the Royal College of Physicians of London on Jan. 27th.

A report, dated Feb. 1st, 1904, was read from the committee on physical disabilities. The report was approved and adopted and it was resolved to send a copy of the report to the Rev. Benjamin Waugh, director of the National Society for the Prevention of Cruelty to Children, as a reply of the Council to his letter of Dec. 6th, 1903.

A letter was read from Mr. A. W. FitzRoy, chairman of the Physical Deterioration Committee, (1) forwarding a copy of a scheme for an anthropometric survey of the United Kingdom submitted to the committee by Professor D. J. Cunningham and Mr. J. Gray, President and secretary of the Anthropometric Committee of the British Association, together with a copy of the *précis* of Professor Cunningham's evidence before the committee; (2) inviting the observations of the College on the scheme; and (3) especially asking for an opinion as to the minimum number and kind of measurements and tests necessary to be used in order to effect the object in view. The letter was referred to the committee on physical disabilities.

The PRESIDENT reported the attendance of himself and Sir Alfred Cooper at a meeting of the Physical Deterioration Committee at the office of the Privy Council on Feb. 8th to give evidence respectively on the condition of the eyes and on the prevalence of syphilis among the poorer classes of the population.

The Council proceeded to the consideration of the letter from Dr. W. G. Dickinson reporting resolutions carried at a meeting of a committee of the "Society of Members." The receipt of the letter was ordered to be acknowledged.

The PRESIDENT reported that in pursuance of the provisions of the Bradshaw bequest he had chosen Mr. A. W. Mayo Robson as Bradshaw lecturer for the ensuing collegiate year.

A letter was read from the Registrar of the General Medical Council reporting that the appointment of Mr. Thomas Bryant as the representative of the College on that Council will expire on March 12th, 1904. The PRESIDENT stated that the election of a representative in the vacancy occasioned by Mr. Bryant's retirement would take place at the next meeting of the Council.

A letter was read from the Secretary of State for the Colonies calling attention to the decision of the University of Cambridge to establish an examination and diploma in tropical medicine and hygiene and suggesting the desirability of similar encouragement being given by the Royal College of Surgeons of England to the study of tropical medicine. The matter was referred to the Committee of Management.

An invitation was received to send delegates to an international congress on School Hygiene to be held at Nuremberg in April next. The appointment of delegates was referred to the President.

# MEDICINE AND THE LAW.

### *Medical Privilege and the Police.*

AT the West London police-court recently a domestic servant was charged with concealment of birth. The evidence with regard to her, in the opinion of the magistrate, was not sufficient to render it probable that a jury would convict and the prisoner was accordingly discharged. In the course of the proceedings the solicitor for the prosecution complained that information with regard to the condition of the accused woman had been refused to the police by Dr. C. T. Parsons, medical superintendent at the Fulham Infirmary, where she had been under treatment. The evidence given with respect to this was that a detective inspector, calling at the infirmary, had asked certain

questions of Dr. Parsons and had received the reply that they could not be answered without the consent of the patient. He added, however, that Dr. Parsons, being called as a witness before the coroner at the inquest upon the body of a child, had given evidence bearing upon the subject in question. The solicitor in making his statement with regard to what had taken place appears to have laid special emphasis upon the fact that the infirmary was a rate-aided institution and the magistrate, Mr. Marsham, made reference to this in commenting upon the incident. Mr. Marsham, however, is a gentleman of considerable experience in the discharge of his duties and he carefully refrained from speaking in condemnation of one who was not before him to defend his conduct. He was content to say in general terms that in a public institution such as an infirmary he would have thought that a medical man would do his best to assist justice, and to add that, in circumstances such as the inquiry before him indicated, there was something to be said upon both sides. With his conclusion no one will disagree. The police have their duties to perform and they naturally look at them from their own point of view. In cases of the class under consideration they can point to the sacrifice of infant life which members of the medical profession equally with the rest of the community deplore and desire to see abated, and they can reasonably argue that the detection and punishment of cases of concealment of birth have some influence in the prevention of similar offences and of the crimes often connected with them. This, however, does not affect the position of the medical man when information is sought from him by detectives as to the physical condition of a patient intrusted to his care, whether the patient be a rich man or woman attended in his or her private house or a poor one lying in the ward of a charitable institution. His duty is to respect the confidence of his patient and to guard the secret acquired in his professional capacity to the utmost in his power so long as to do so does not make him participator in a crime. Ethically he is under the same obligation with regard to the knowledge which he has acquired as the solicitor consulted by a client who has committed a wrongful act, or a clergyman to whom such an act has been confessed. In a court of law the solicitor has the advantage of the medical man and of the clergyman, for he cannot be compelled to state what he has learnt in the course of a consultation with his client. An attempt has been made on other occasions to trace cases of infanticide by means of the medical profession and the usefulness to the police of the information which might so be obtained is obvious. On the other hand, it is equally clear that if unfortunate women knew that their secret would at once be sought and obtained by the agents of the law from the medical man they would shun the infirmary and avoid the medical practitioner, however great their physical need and the danger to their lives. It would be a gross treachery for the medical practitioner to betray those who appealed to him for aid in the confident belief that their secrets were safe in his keeping and he would have no right to encourage such a belief or to permit it to exist unless it were well founded. A direct warning would, no doubt, prevent any charge of breach of faith being made, but if we imagine such a state of affairs in practice we have to picture to ourselves a notice in the entrance hall of a hospital or of a medical man's consulting room in a poor district couched in such terms as these: "All questions asked by the police with regard to patients will be promptly answered. Women recently delivered of children should note this warning." One effect of the intimation would be to destroy in the case of the hospital and of the medical practitioner that reputation of being the trusted friend of the sufferer without distinction of creed and without question as to moral conduct of which the medical profession and those responsible for the organisation of our hospitals are alike justly proud. Circumstances must govern the decision of the medical man in individual cases where he has good reason to believe that his patient has infringed the law, and the question that he must decide by the guidance of his conscience and of his sense of professional honour may be a very difficult one, but the police have no right to try to enrol him as a detective to aid in their preliminary inquiries into crime or to complain if he refuses to accede to their wishes. Still less are they justified in applying pressure upon him by holding him up to the magistrate as one who sympathises with breaches of the law. He may be said to have gained certain knowledge as a friend only, but few men of honour would betray a friend to the police unless the very strongest reasons of public duty were there to render the step necessary.

### *The Legal Test of Insanity.*

At the Lancaster assizes recently in a murder case in which the defence of insanity had been suggested, Mr. Justice Jelf laid down with great emphasis the so-called "legal test." He said: "To establish a defence on the ground of insanity it must be clearly proved that at the time of committing the act the party accused was labouring under such a defect of reason from disease of the mind as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know that he was doing wrong." The inadequacy of this definition has often been pointed out and many judges seem to have discarded it. Its chief weakness lies in the fact that it takes no note of that large class of cases which are grouped under the name "impulsive insanity." Mr. Justice Hawkins (now Lord Brampton), in the well-known case of the man Ware who killed a fellow patient in an asylum, said that the prisoner knew that he had killed a man because he said himself that he had, he also knew that it was wrong for he asked for a promise that he would not be punished if he gave up his weapon, yet his lordship continued: "No man in his senses would suppose that any jury would find Ware responsible for what he had done." Again, the late Mr. Justice Stephen held that the law allows that a man who by reason of mental disease is prevented from controlling his conduct is not responsible for what he does. The late Lord Chief Justice Cockburn dissented from this as an interpretation of the law as it stands but agreed that such an alteration was advisable as would cover these cases of inhibited control. It is gratifying to find so many eminent judges taking this enlightened view and it is to be hoped that before long the other occupants of the bench will see the matter from the same standpoint.

### *An Action for Negligence in the Application of the Roentgen Rays.*

An account of an action for negligence recently tried at Dublin and arising out of injuries sustained by a child through the use of the Roentgen rays will be found in the letter of our Irish correspondents at p. 544. The defendants, it will be seen, were the president and professors of the Queen's College, Galway, a man named Haire employed in the College as mechanical assistant in the Natural Philosophy Department, and Dr. Nicholas W. Colahan, a medical man who desired to locate a needle supposed to have entered the knee of a child, his patient. The apparatus employed belonged to the College and was used as a rule for the instruction of students, but Mr. Haire was apparently permitted to make radiographs with it for the benefit of local medical men and had done so before in about 50 instances. Dr. Colahan was present when Mr. Haire used the apparatus upon the plaintiff and also on one occasion used it himself in Mr. Haire's absence. In these circumstances the first question with regard to the College authorities was whether they had undertaken any duty with regard to the plaintiff and it was abundantly clear that they had not. With regard to the two other defendants, the case against them depended upon the proof of their alleged negligence as shown by the condition of the child's leg and by the evidence of his mother and sister as to the manner in which the rays had been applied. This evidence was not only directly contradicted by two of the defendants but the account given was inconsistent with the radiographs produced before the jury, which could not have been made had the bulb been kept at the distance of two inches from the limb described by the little boy's relatives. A considerable body of expert evidence was also called and made it clear that no negligence had been proved against either Dr. Colahan or Mr. Haire. The action shows a certain lack of gratitude on the part of the parents of the child for the efforts made to assist them by all involved.

## ASYLUM REPORTS.

*Gartloch Asylum, Glasgow (Report for the year ending May 15th, 1903).*—The average number of patients resident during the year was 613, comprising 312 males and 301 females. The admissions during the year amounted to 285—viz., 151 males and 134 females. Of these 197 were

first admissions. Dr. W. A. Parker, the medical superintendent, states in his report that alcohol stands pre-eminent as the chief cause of insanity in the cases admitted. Next in importance was senile decay as a cause of insanity. A strong hereditary predisposition to insanity or nervous disease was ascertainable in one-fourth of the cases in which a family history could be obtained. The number of patients discharged as recovered during the year amounted to 114—viz., 59 males and 55 females, or 18·6 per cent. of the average number resident. The deaths during the year amounted to 70, or 11·4 per cent. as calculated on the same basis. Of the deaths four each were due to senile decay and cerebral syphilis, five to cardiac disease, six to bronchitis and broncho-pneumonia, six to pulmonary and other forms of tuberculosis, 17 to general paralysis of the insane, and the rest to other causes. A sanatorium for the treatment of tuberculous patients was opened in December, 1902, and although it is too soon, adds Dr. Parker, to attribute the low death-rate from tuberculosis during the year to the sanatorium its use must be regarded as having helped to lessen the death-rate. This building is one storey high and is situated on rising ground to the north-west of the asylum buildings. It faces due south and has been planned to admit the maximum of light and air. There is one large ward for each sex, consisting of 26 beds, with four attached single rooms, affording a total accommodation of 60 beds. Each ward is 140 feet long and 26 feet broad and gives an air-space of over 2000 cubic feet per head. The wards and rooms are lighted by electricity and heated throughout by a system of hot water pipes. The sanatorium is supplied with a septic tank installation for treating its sewage, while a steam disinfector has been erected to deal with all clothes before going into the common laundry. The Commissioners in Lunacy state in their report that the condition of the patients as regards clothing and personal appearance indicated due and proper attention on the part of those in charge of them, that the old and feeble bore evidence of being kindly cared for, that the wards were bright and comfortable, that the bedding was in excellent condition, and that the medical case books were well and carefully kept. The committee of management states in its report that the 60 beds of the sanatorium are fully occupied and "have proved a great boon by removing many infectious and objectionable inmates from among the others." Additional farm land to the extent of 93 acres has been purchased to increase the supply of farm-grown meat and vegetables.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8684 births and 5396 deaths were registered during the week ending Feb. 13th. The annual rate of mortality in these towns, which had been 18·1, 19·4, and 17·2 per 1000 in the three preceding weeks, rose again last week to 18·4 per 1000. In London the death-rate was 17·7 per 1000, while it averaged 18·8 per 1000 in the 75 other large towns. The lowest death-rates in these towns were 6·0 in Smethwick, 6·3 in Northampton, 8·4 in Aston Manor, 9·0 in Hornsey, 10·7 in East Ham, 10·9 in York, 11·0 in Hastings, and 11·2 in Walthamstow and in Wallasey; the highest rates were 23·6 in Birkenhead, 26·2 in Bootle, 26·5 in Gateshead, 27·7 in Rhondda, 27·9 in Warrington, 28·5 in Bury, 28·8 in Swansea, and 29·2 in Newport (Mon.). The 5396 deaths in these towns last week included 449 which were referred to the principal infectious diseases, against 427, 497, and 412, in the three preceding weeks; of these 449 deaths 182 resulted from whooping-cough, 93 from measles, 61 from diphtheria, 43 from diarrhœa, 32 from "fever" (principally enteric), 31 from scarlet fever, and seven from small-pox. No death from any of these diseases was registered last week in Hornsey, Tottenham, Walthamstow, Hastings, Northampton, Burton-on-Trent, King's Norton, Aston Manor, Derby, Wigan, or Barrow-in-Furness; while they caused the highest death-rates in Leyton, Ipswich, Great Yarmouth, Bootle, Warrington, Bury, Preston, and Gateshead. The greatest proportional mortality from measles occurred in Willesden, Warrington, Blackburn, and Sunderland; from scarlet fever in Warrington; from diphtheria in Great Yarmouth and in Bury; from whooping-cough in Leyton, Wallasey, Liverpool, Bootle, Bury, Stockton-on-Tees, West Hartlepool, Gateshead, Newport (Mon.), and Swansea; and from "fever" in Preston. Of the seven fatal cases of small-pox registered in these towns last week, four belonged to Gateshead and one each to Nottingham, Hull, and South Shields. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had been 24, 21, and 25 at the end of the three preceding weeks, had declined again to 24 at the end of last week; three new cases were admitted during the week, against three, four, and eight in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital on Saturday, Feb. 13th, was 1644, against 1679, 1651, and 1657 on the three preceding Saturdays; 162 new cases were admitted during the week, against 180, 168, and 169 in the three preceding weeks. The deaths in London referred to pneumonia and diseases of the respiratory system, which had been 353, 429, and 347 in the three preceding weeks, further declined last week to 324, but were 57 above the number in the corresponding period of last year. The causes of 55, or 1·0 per cent., of the deaths in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Salford, Bradford, Leeds, and in 44 other smaller towns; the largest proportions of uncertified deaths were registered in Leyton, Liverpool, St. Helens, Warrington, Sunderland, South Shields, and Rhondda.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 19·8, 18·4, and 18·5 per 1000 in the three preceding weeks, further increased to 19·2 per 1000 during the week ending Feb. 13th, and was 0·8 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 6·2 in Perth and 14·3 in Leith, to 23·0 in Paisley and 24·6 in Dundee. The 636 deaths in these towns included 24 which were referred to whooping-cough, 21 to measles, 20 to diarrhœa, three to diphtheria, two to scarlet fever, one to small-pox, and one to "fever." In all 72 deaths resulted from these principal infectious diseases last week, against 54, 62, and 44 in the three preceding weeks. These 72 deaths were equal to an annual rate of 2·2 per 1000, which was 0·7 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of whooping-cough, which had been 11, 16 and 15 in the three preceding weeks, increased again last week to 24, of which nine were registered in Aberdeen, six in Glasgow, three in Paisley, two in Dundee, and two in Leith. The deaths from measles, which had been 19, 12, and seven in the three preceding weeks, rose again to 21 last week, and included 11 in Glasgow, five in Dundee, and four in Paisley. The fatal cases of diarrhœa, which had been 14, 17, and 11 in the three preceding weeks, rose again last week to 20, of which nine occurred in Glasgow, four in Aberdeen, two in Edinburgh, two in Dundee, and two in Greenock. The deaths from scarlet fever, which had been six and three in the two preceding weeks, further declined last week to two, both of which were recorded in Glasgow, where the fatal case of small-pox also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 167, 128, and 129 in the three preceding weeks, declined again last week to 126, but were 14 in excess of the number in the corresponding period of last year. The causes of 21, or more than 3 per cent., of the deaths registered in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·0, 25·6, and 30·5 per 1000 in the three preceding weeks, declined again to 27·2 per 1000 during the week ending Feb. 13th. During the past four weeks the death-rate has averaged 27·3 per 1000, the rates during the same period being 18·0 in London and 16·5 in Edinburgh. The 198 deaths of persons belonging to Dublin registered during the week under notice were 24 below the number in the corresponding period of last year and included ten which were referred to the principal infectious diseases, against eight, 14, and 12 in the three preceding weeks; of these, six resulted from whooping-cough, two from diarrhœa, one from diphtheria, and one from "fever," but not any from small-pox, measles, or scarlet fever. These ten deaths were

equal to an annual rate of 1·4 per 1000, the death-rates last week from the principal infectious diseases being 1·4 in London and 0·5 in Edinburgh. The fatal cases of whooping-cough, which had been five, 11, and nine in the three preceding weeks, further declined last week to six. The 198 deaths in Dublin last week included 36 of children under one year of age and 59 of persons aged 60 years and upwards; the deaths both among infants and among elderly persons showed a marked decline from the number in the preceding week. Three inquest cases and five deaths from violence were registered, and 67, or more than a third, of the deaths occurred in public institutions. The causes of five, or nearly 3 per cent., of the deaths registered in Dublin last week were not certified.

## THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeon J. Bradley to the *Essex*. Staff Surgeons: E. Cooper to the *Astræa* and P. H. M. Star to the *Fire Queen* for the *Nelson*. Surgeons: E. S. Wilkinson to the *Astræa* and C. A. G. Phipps to the *Essex*.

### ROYAL ARMY MEDICAL CORPS.

Major S. Macdonald proceeds to Woolwich for duty. Major R. Caldwell has left Aldershot for India. Captain E. S. Clark joins the Home District for duty from the Royal Army Medical College. Lieutenant W. F. Tyndale, C.M.G., and Major A. P. Blenkinsop have embarked for India.

Captain P. S. Lelean, from the Seconded List, to be Captain (dated Dec. 14th, 1903).

### VOLUNTEER CORPS.

*Rifle:* 8th (Scottish) Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Captain J. C. Macalister to be Surgeon Major (dated Feb. 13th, 1904). The undermentioned Surgeon-Lieutenants to be Surgeon-Captains:—A. G. Gullan (dated Feb. 13th, 1904) and W. S. Henderson (dated Feb. 13th, 1904). 19th Middlesex (Bloomsbury): The transfer of Surgeon-Captain W. N. Evans, from 1st Volunteer Battalion the Middlesex Regiment, bears date Sept. 12th, 1903.

### NATIONAL PHYSIQUE AND AN IDEAL ARMY.

We have been favoured with the reprint of an article on this subject which appeared in the *Army and Navy Gazette* of Feb. 13th. It is the purpose of Dr. Arthur H. Rideal, the author of the article in question, to set forth a scheme which he tells us he has been studying for some time and has had numerous opportunities of discussing with army men, volunteers, and civilians. So far as concerns the improvement of the physical culture, drill, and training of the youth of this country the subject is rightly regarded as one of great national importance and we concur in thinking that something on the lines of Dr. Rideal's proposals will sooner or later have to be adopted if we are to avoid the Continental system of conscription. We all know how the average schoolboy loves "to play at soldiers" and we have only to encourage and to develop this natural instinct in order to improve youths in physique and to imbue them at the same time with some idea of the importance of their duties in the future as citizens and soldiers and defenders of the empire. The work, it is contended, only requires to be undertaken and systematically carried out with the aid of properly qualified instructors belonging to the regular service and appointed for the purpose to prove successful. It is suggested that every boy who has attained the age of 12 (or 13) years—unless physically unfit or destined for the navy—should be compelled to commence a five years' course of drill and instruction calculated to fit him for a place in the ranks of the army, and the necessary organisation and way in which this might be done are set forth in the article under notice. There should be no lack of material, for "at the last census there were in the United Kingdom no less than 425 000 boys between the ages of 12 and 13. If we deduct the very high proportion of 40 per cent. as being physically unfit there still remain more than 250 000 boys each year to deal with and in eight years from the initiation of the scheme we should have over a million well-trained young men at our service in case of need, and in the course of time every able-bodied man in the kingdom would be sufficiently trained to at once take up arms in defence of the empire." With regard to those portions of Dr. Rideal's article referring to a standing army, the short-service system, the militia, and as to what would be the financial effect of his scheme we can express no opinion. We must leave these to the consideration of experts and military authorities. But as to the advantage of his scheme for the training of youth in a physical sense and as a national basis for recruiting the army we entertain little or no doubt.

### WAR OFFICE CHANGES: DOING AND UNDOING.

A number of most important and radical reforms have already taken place in connexion with the recommendations of the War Office Reconstruction Committee. The Committee of Imperial Defence, under the presidency of the Prime Minister, has been reconstituted; an Army Council has been established under the Secretary of State for War and the appointments thereto have received the approval of the King and have been published in a special edition of the *London Gazette*; Earl Roberts, in consequence of the abolition of the office of Commander-in-Chief, has retired from the War Office but retains his seat on the Committee of Imperial Defence; and, last of all, the Duke of Connaught has, it is alleged, been selected by the Army Council to fill the newly created post of Inspector General of the Forces. But amid these sundry and manifold changes in the War Office world there is one thing conspicuous by its absence. All that was done after very full and deliberate consideration by the late Secretary of State for War for the direct representation of the medical service has apparently been ignored and left undone by his successor in that office. We briefly alluded to this omission last week as a matter of surprise to us but supposed that it was nevertheless intended that provision must and would be subsequently made somehow for a matter of such vital importance to the nation and the efficiency of the army. After all that has taken place and with the facts connected with the late war in South Africa still fresh in the public mind it is impossible to believe that we are to revert to the old state of things and that the medical service is not to be represented adequately and prominently in the councils of the War Office. It is a point on which we have dwelt again and again in the past and we had congratulated our readers on the fact that owing to changes introduced in Mr. Brodrick's time the head of the Army Medical Service had at last been put in a proper official position where his representations and influence would really be of use. Mr. Arnold Foster will assuredly have to see to this matter and we are glad to notice that it has not escaped the attention of the British Medical Association.

## Correspondence.

"Audi alteram partem."

## THE VALUE OF COD-LIVER OIL.

*To the Editors of* THE LANCET.

SIRS,—In the annotation on the adulteration of cod-liver oil in THE LANCET of Feb. 6th, p. 378, mention is made of a communication by my brother, Mr. E. J. Parry, calling attention to the large amount of substitution of other oils taking place during the present scarcity. Of this I have nothing to say beyond the fact that it behoves all medical men to make a point of seeing that their patients procure their oil from a trustworthy source. The point in the article to which I wish to refer is his suggestion that the value of cod-liver oil is largely traditional. With this I must, on the whole, agree. The value of cod liver oil depends more on the ease with which it is absorbed and assimilated than on any specific virtues which it possesses. Any other fat which is equally readily absorbed and assimilated would be just as good. But I think that the fact that the accumulated experience of many generations that cod-liver oil is the best medicine for the various wasting diseases tends to show that, so far, no other fat has been discovered which is so readily absorbed by the human intestine. There are many other fats which are of great value (I am, for instance, in the habit of ordering a few teaspoonfuls of liquid bacon fat at breakfast to children who are unable to take cod-liver oil), but I believe, on the whole, that there is nothing quite equal to cod-liver oil, no fat which is so well assimilated by children, and therefore that, while undoubtedly

tradition plays some part in the value attaching to this substance, so far we have no substitute of quite equal value.

I am, Sirs, yours faithfully,

L. A. PARRY, M.D. Lond., F.R.C.S. Eng.,
Hon. Assistant Surgeon, Royal Alexandra Hospital for Sick Children, Brighton.

Hove, Sussex, Feb. 12th, 1904.

## CHLORETONE IN SEA-SICKNESS.

*To the Editors of* THE LANCET.

SIRS,—Mr. L. E. Ellis will find, I think, that chloretone is far more successful with women than with men. I have just had a letter from a lady from Marseilles: "Thank you a thousand times for the 'cure.' It is a grand success. As you know, I am not a good sailor, but I have not been sick at all and we really had a pretty bad time. Out of 43 ladies only one besides myself put in an appearance at breakfast. About an hour after we left Plymouth I felt queer and took one capsule and after that one night and morning." On the other hand, I have heard of its failure with men. I believe that it is efficacious only in sea sickness of nervous origin, with cold extremities, giddiness, and horrible depression. It seems to be useless in stomach sea-sickness where the chief symptom is the vomiting of frothy mucus and where the nervous symptoms seem to be only secondary to the sickness. Men suffer much more from the latter than the former kind.

I am, Sirs, yours faithfully,

Silverton, Feb. 15th, 1904. O. CLAYTON JONES, M.B. Oxon.

## THE PROPOSAL TO PROHIBIT MEDICAL PRACTITIONERS FROM DISPENSING.

*To the Editors of* THE LANCET.

SIRS,—One of the objections to writing prescriptions as opposed to giving medicines is that patients sometimes hand them over to friends of theirs who are supposed to be suffering from the same disease, which may be, however, an entirely different one. Even if the malady really be known to be the same, two people would probably receive from a physician at any rate not exactly the same treatment. A great many people, however, are not aware that subtle distinctions have to be made, and hence much mischief may, even with the best intentions, be produced. Sometimes, too, people who assume some of the duties of a medical man may from prescriptions gain a confidence which, though really misplaced, may yet lead them to act to the disadvantage of both the public and the medical profession in other ways. I am, Sirs, yours faithfully,

Grimsby, Feb. 10th, 1904. GEORGE GRESSWELL.

*To the Editors of* THE LANCET.

SIRS,—May I say in reference to the letter by "A Chemist and Druggist" in THE LANCET of Feb. 13th, p. 464, that, although what he says as to quack medicines is true and wise, he is altogether mistaken in supposing that "the prescribing chemist, speaking broadly, is non existent." Let him try the experiment next time he takes a holiday of going into the nearest druggist's shop and asking for a bottle of medicine to relieve some simple symptoms. Scores of my friends have told me that they often get medicine in that way when from home, for it is cheaper and more convenient than going to a medical man, and that on no occasion have they ever been refused. I used to practise in a town of 10,000 inhabitants and there the commonest introduction to a statement of symptoms was: "I went to the chemist, but the medicine he gave me has not done much good, and I thought it better not to let it go on any longer so I have come to you." The public would be most indignant if any attempt was made to prohibit druggists from prescribing for simple ailments. A man with an attack of diarrhœa will not go to a medical man, as a rule, if he knows that from there he will have to go on to the druggist. He will go to the druggist first and, if not cured, will then go to the medical man. I believe this is the rule all the country over and I am sure that it is useless to alter it by Act of Parliament. It is no use legislating for an ideal social state. Human nature must be taken as it is.

I am very glad to hear from Mr. J. Smith Whitaker that this dispensing clause is not the handiwork of the medico-political committee of the British Medical Association. One can understand an individual member practising in the Central London division showing such a complete ignorance of the conditions of country practice. I think he would show more wisdom if he altered his suggested clause so as to make it apply only to the kind of practice he is conversant with. As it stands it would deprive thousands of hard-working medical practitioners of their means of livelihood, for it would reduce their incomes below a living wage. I hope the Central London division will understand this and at once reject the suggested clause and so set at rest the minds of so many of their anxious brethren. My experience is that the medical profession takes a higher social position in the country than it does in the town and that therefore country practitioners can be safely trusted, without compulsion, to avoid what is derogatory, wanting in tone, or even vulgar.

I am, Sirs, yours faithfully,

Feb. 15th, 1904. PAGANUS.

*To the Editors of* THE LANCET.

SIRS,—The thorny question of dispensing by medical men in general practice cannot, it is evident, be settled on similar lines for those in town and country and for those who do and those who do not employ an assistant. Nor can it be dealt with apart from the regulation of prescribing by druggists on stricter lines than at present. To most practitioners dispensing is not so much *infra dig.* as simply an unpleasant and time absorbing nuisance. To the younger men it is often their one way of learning to prescribe. In very many cases the patients regard the fee as paid not so much for the advice as for the physic, and therefore many medical men are compelled against their better will to give medicine when it is not strictly necessary, and yet—undignified as such procedure is—how many of those who complain that their vested interests would be endangered by the restriction of dispensing will have the courage to demand payment for skill and knowledge rather than for mere physic? It must surely have often occurred to the conscientious general practitioner that reform on concerted lines was required and that if not otherwise, then even at the cost of abolishing dispensing altogether wherever a competent druggist is available. In a word, the undignified thing about dispensing is that it has come to put us in that false relation with our patients. We are obliged in self-defence or self-regard to "pile on physic" *per fas atque per nefas.*

I am, Sirs, yours faithfully,

Feb. 8th, 1904. VERITAS.

*To the Editors of* THE LANCET.

SIRS,—With reference to the proposed additional clause to the Medical Acts Amendment Bill to prevent medical men from dispensing their own medicines except in special circumstances, I beg to offer my views on the matter. I may say that I am a country practitioner with clubs and I dispense my own medicines. I do not think any of your correspondents have tried to get to the root of the matter and to ask themselves what there is in the present system of dispensing our own medicines which is so wrong as to make some of us consider that the only remedy is to stop the medical profession from dispensing as far as it is possible to do so. What, then, is the object of the proposal? and out of this necessarily arises a second question—What alternative system is to be proposed? The first question may be answered to the point as follows: To prevent unscrupulous men from treating their patients simply by giving a bottle of medicine without having made any attempt to form an accurate diagnosis and, moreover, charging exorbitantly for services rendered thereby. That is the evil that unquestionably exists and equally unquestionably we should attempt to drive it out of our honourable profession. The result is injurious to the public and to the profession. Who amongst us has not seen a case admitted to any of the large hospitals in a condition aggravated by the neglect of the medical attendant? And who amongst us does not see the harm that is daily being done to our profession by practitioners running cheap dispensaries which only pay by the number of bottles of medicine that are dispensed, and by the unprofessional attitude of men in the matter of clubs, which is well illustrated in your article in THE LANCET of Feb. 13th on the Battle of the Clubs at Southampton? But, it will be asked, how are you going to stop this evil, by preventing medical men from dispensing their own medicines? The probability is that you will create a worse evil by driving the patient, who at present consults you and who can only afford a small fee, to consult the

druggist who has no business to try to make a diagnosis. The answer to this question is, of course, the answer to my second question as to what alternative to the present system is proposed and I am not so foolish as to think that I have got a cut-and-dried remedy. We must have the views of men conversant with the matter, as to the conditions existing in countries where medical men do not dispense, and in this respect I consider Dr. D. W Samways's communication the most valuable one THE LANCET has yet received. If this proposal, which is to raise the standard of the profession and to protect the public, is to have its effect there must be a simultaneous proposal to prevent druggists from supplying medicines without a prescription and some system of endorsement by a medical practitioner of a prescription which has been already dispensed a given number of times. The present uncontrolled sale of patent and proprietary medicines must also be stopped. The difficulties of such a system are, of course, only too obvious and the only alternative seems to be to fight with the weapons which are being used against us and to establish a trade union, or else to leave matters as they are and to trust to the moral education of the practitioner to bring about a remedy. This latter alternative, I think, is the only feasible one, and I may add with reference thereto that I consider the present tendency to minimise the value of a good general education to a medical man, as may be exemplified by the professional privileges allowed at the universities, is the root of the evil.

I am, Sirs, yours faithfully,

Feb. 13th, 1904. ARZT.

*To the Editors of* THE LANCET.

SIRS,—A great deal has been written and will probably be written on this most momentous question of dispensing. But so far surely all your correspondents have lost sight of a very important matter, not so much the advantages or disadvantages of dispensing as the advantages that are given to the prescribing druggist and quack. Until these two are put down, and only then, will, I think, it be possible—or shall I say fair—to stop medical men from dispensing. If dispensing practitioners are stopped now thousands of pounds will go into the pockets of these illegitimate trades and the legitimate one will perforce go to the wall, forsooth because a certain body of men think they will raise the status of the profession. Surely it is the man who makes his position; you cannot make a silk purse out of a sow's ear. Why, I ask, is it more *infra dig.* to dispense one's own medicines than for a clergyman to write his own sermons or a lawyer to write briefs for his counsel? It is part of their livelihood, so anything appertaining to medicine is part of ours. Some of your correspondents' ideas are wide of the issue, and one in particular shows a want of knowledge when he suggests that no medical man should be allowed to attend a friendly society under 5*s.* per member per annum and the society to find everything else. I believe most friendly societies pay 4*s* per member per annum, everything included. I am afraid he is woefully ignorant of the working man if he thinks he will get him to pay more and receive less than he now does. I dispense my own medicines, as do my other brother practitioners in this town, and yet every market day we are exposed to the insults of a quack who has a stand in the market and dispenses medicines without let or hindrance. Where is this noble body of men who allow this to continue openly? Their one object seems to be to enrich this class and to starve out many who have spent both time and money on their education.

I am, Sirs, yours faithfully,

Feb. 7th, 1904. IN RECTO FIDES.

## LEPROSY.

*To the Editors of* THE LANCET.

SIRS,—I have been asked to prepare a paper for the Dermatological Congress which takes place at Berlin next September, the subject given to me being British India—the Condition of the Spread of, and Fight against, Leprosy since the First International Conference in 1897, the heads under which I am to write being the following:—

1. *Statistics.*—(*a*) According to official reports (Government); and (*b*) asylums, colonies (mission). What kind of asylum—sex and age of inmates.

2. *Methods employed to fight leprosy between 1897 and 1903 (inclusive).*—(*a*) Laws of Government; and (*b*) activity of Government or of private societies for the suppression of leprosy, municipalities or parishes, &c. (1) Number of asylums or colonies; (2) number of places; (3) how the patients get about; (4) occupation of lepers in asylums; and (5) conveying of lepers by train, steamer, &c.

3. *The condition of lepers in infirmaries and surgery wards.*

As I am anxious to have the paper as accurate as possible it will be a great favour if any of your readers who have information on the above points and for the period indicated will kindly communicate with me.

I am, Sirs, yours faithfully,

WELLESLEY C. BAILEY,
Secretary and Superintendent,
Mission to Lepers in India and the East.

17, Greenhill-place, Edinburgh, Feb. 11th, 1904.

## THE METROPOLITAN ASYLUMS BOARD AND ITS ASSISTANT MEDICAL OFFICERS.

*To the Editors of* THE LANCET.

SIRS,—Permit me to express my approval of the strictures you have recently passed upon the treatment which certain of the assistant medical officers of the Metropolitan Asylums Board have received. I myself have an unpleasant recollection of the cavalier methods of the Board. At a time when they (wrongly) anticipated an increase in infectious diseases I was appointed one of four assistant medical officers out of 11 selected candidates but was kept waiting six weeks before allocation to a fever hospital and then only after initiating a lengthy correspondence with the Board. I was accommodated with a box-room for a bedroom, devoid of fireplace, unhygienic, and eminently uncomfortable. A few weeks afterwards I was requested, through the medical superintendent, to take up lunacy work in one of the asylums of the Board, his inducement being "that if I considered the Board the Board would consider me." I consented to do so temporarily but heard nothing further, not even as to whether the Board approved of my decision or not.

Shortly afterwards, during the renovation of the official block, I was asked, along with other assistant medical officers, to sleep in a ward which a few weeks before had been used for the accommodation of enteric fever patients. I declined, as I much objected to sleep in any such ward whatever the method of disinfection, but was quite willing to put up with *the most primitive accommodation* anywhere in the official block. This was most ungraciously assented to and only on condition that I rose every morning at 6.30 to admit workmen to my room, but no workmen, until fully ten days had elapsed, availed themselves of the extra hours. The light in my room was cut off and no substitute was furnished. A few days later the sub-committee intimated to me that it did not find itself in the position of recommending the hospitals committee to confirm me in my appointment and the committee would be asked to terminate it *nine days after the receipt of its letter.* I, however, insisted upon giving a month's notice. The action of the Board very seriously modified my plans for the future and necessitated a most serious curtailment of research work I was engaged in during my leisure.

This bare statement of facts indicates what the Board is capable of doing in the way of considering an assistant medical officer who was ready and willing to consider the Board. I am, Sirs, yours faithfully,

Feb. 15th, 1904. EX-A.M.O.

## THE INQUEST ON WHITAKER WRIGHT.

*To the Editors of* THE LANCET.

SIRS,—I observe that there is still a dropping fire of remarks on the trial of the late Whitaker Wright and on the subsequent coroner's inquest, and yet what seems to me by far the most important oversight in the latter has apparently passed without any commentary either in THE LANCET or elsewhere. Was it not a matter of clear duty in conducting this inquest to inquire minutely and even suspiciously as to how the suicide became possessed of the poison by which he made away with himself? Admitting as was suggested by the coroner to a witness, that Whitaker Wright was familiar with cyanide of potassium as employed in the arts and that he may have had unusual opportunities thereby for the possession of it, is it not the case that under a very strict

law the sale of cyanide of potassium or of any similar poison has to be registered carefully by the seller as well as the purpose to which it is to be applied. How was it that no directions proceeded from the coroner to investigate carefully this point and without loss of time? What dealer had so completely set aside the letter and the spirit of the "Poisons Act" and how comes it that the whole press of the country (so far as I have remarked) has passed over this subject without criticism. No doubt it was easier for a man familiar with the use of the cyanides, even when he himself was watched and suspected, to obtain them than it would be for others, but still he must have employed an agent, and as we are informed that he got the poison in the form of capsules it stands to reason, one would think, that the delivery of those capsules ought to have been diligently sought out and the question raised and decided at the inquest whether there was a violation, and a criminal violation, of the "Poisons Act," yet no trace of such inquiry remains except in the fact that the coroner, as if anxious to help a witness over a difficulty, suggested that Whitaker Wright's familiarity with the cyanides made it, as it were, quite easy for him to have them in his possession in that particular form. As a Scotsman I am not familiar with coroner's inquests or the proceedings that may be ordered under them, but I cannot help thinking that here is a case of negligence which should have been avoided in the public interest.

I am, Sirs, yours faithfully,

Feb. 13th, 1904. MIDLOTHIAN.

## SMALL-POX IN THE LEVANT.

(FROM THE BRITISH DELEGATE TO THE OTTOMAN BOARD OF HEALTH.)

THE spread of cholera in Syria and Mesopotamia and the occurrence of occasional cases of plague in Egypt and elsewhere have attracted more attention than the prevalence of small-pox in the Near East, although the latter has probably caused a far higher mortality than the other two diseases put together.

In Constantinople small-pox has been mildly epidemic during the past two months. It is probably rarely absent altogether from this city, although it usually causes but a single occasional death in the weekly mortality bulletins. The following are the returns of small-pox deaths week by week during the last 17 weeks beginning with the week ending Oct. 18th, 1903: 1, 3, 2, 0, 1, 6, 7, 7, 4, 6, 6, 6, 7, 8, 3 6, and 14. The last and largest figure is for the week ending Feb 7th. The cases have been scattered more or less all over the city, but the quarters most affected have been those of Kuskunjuk on the Asiatic side of the Bosphorus, Hasskeui and Sultan Ahmed on the two sides of the Golden Horn, and Pera.

Smyrna has been the scene of a severe epidemic of the disease since the middle of last year. A single death from it occurred in each of the first four months of the year. Then in May there were three deaths, in June eight, in July 81, in August 199, in September 268, in October 134, in November 37, and in December 10. Occasional cases are still reported as occurring in Smyrna.

In Aleppo small-pox was epidemic throughout the last three months of the year, particularly in the Macharka quarter of the town. At one time as many as five deaths a day from the disease were reported as occurring. Damascus has also been visited by an epidemic of the disease, but the figures have not yet been reported. Outbreaks of greater or less severity have also been observed in the islands of Chios and Mitylene. In the former it was imported from Smyrna in the month of September, and though a large number of cases were seen there were only two deaths from the disease. In the latter small pox appeared towards the end of the year and invaded many villages in different parts of the island. The disease was reported from Prevesa, on the coast of Epirus, in December; while at Kavala, on the Ægean coast, it was seriously epidemic through the greater part of last year. From Kavala it spread to Pravista and many villages in the neighbourhood. At Samsoun, on the Black Sea, small-pox was prevalent to a serious extent in the earlier part of the year. In the first three months of the year the cases reported numbered 165 and the deaths 45. It has not been mentioned in recent reports from there, but in the near neighbourhood of Trebizond, on the same coast, a malignant outbreak occurred last month, causing as many as 20 deaths out of only 29 cases.

Other places in the Turkish Empire from which the presence of small-pox has been reported in the last few months have been Valona on the Albanian coast, Latakia and Tripoli on the Syrian coast, Van in Armenia, and the island of Samos. The intensity of the disease in these different places has varied considerably. In Constantinople it has been mild in character. In Smyrna, on the other hand, it has been malignant, the cases being mostly confluent and not infrequently hæmorrhagic. The outbreak near Trebizond must also have been of a peculiarly malignant character to judge from the proportion of deaths to cases.

The law relating to vaccination in Turkey is contained in the "Règlement sur la Vaccination" of the year 1895. Article 1 of this Règlement requires that every boy or girl attending a public or private school must be vaccinated unless they show evident traces of having had small-pox. Article 3 makes vaccination compulsory for all persons entering a Government office, a college, the army, or the police. Article 11 states that parents should have their children vaccinated during the first six months of life and Article 19 advises revaccination every five years. Free vaccination is ordered to be provided by the municipal or other Government authorities and other articles lay down in detail the method of performing the operation and recording the results. The Règlement is an excellent one if it were strictly applied. An Imperial Iradé was recently issued ordering its immediate and strict application. There can be no doubt that it had been much neglected recently both in the capital and other parts of the empire. The frequency of small-pox and the rarity or inefficient performance of vaccination in this country are shown by the large number of persons met with who have at some time or other had small-pox. Out of 17 persons forming the subordinate (native) staff of a certain establishment here I ascertained by a recent inquiry that as many as nine had had the disease.

Constantinople, Feb. 11th.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Poisons Bill for India.—Increase of the Plague Epidemic.—Useless Inspections.*

THE Poisons Bill for India has been passed but it remains for the local governments to carry it out. There will be no stereotyped lists of poisons, even for mercantile chemical manufactures, but the local governments will have wide powers to exempt at discretion both the persons engaged in the manufacture of such substances and the substances which they manufacture. In rural districts the sale of poisons will not be neglected, as in the case of the two principal ones, white arsenic and opium, control will be exercised either at the port of entry or under the Excise Act. The amount of poisoning by white arsenic, both of human beings and of animals, in India is probably very considerable—certainly much more than ever comes to light. Perhaps the most curious part of the new Bill refers to medical practitioners. There being no registration—not even any qualification—required for practice it was impossible to define what constituted a medical practitioner, so it is left to the courts to decide each case on its merits. Any other course would have necessitated what would amount to registration of practitioners.

The plague mortality throughout India, after remaining nearly stationary for several weeks, has again made a further advance. The number of deaths last reported was 21,302, an increase of about 4000 on the total of the preceeding seven days. The chief development is in Bengal, especially in the districts of Gaya and Patna, and in the Punjab. Plague has increased markedly also in the Central Provinces. In Bombay city a further recrudescence is evident but in Calcutta the disease is apparently still dormant.

Medical inspection at the railway stations and at the bunders is still kept up in the Bombay Presidency which is as futile as it is oppressive. The Plague Commission reported against it and the absurdity of maintaining it is shown in the fact that plague has been prevalent in every district of the presidency. A petition signed by 4000 persons has at last been presented to Government and the grievance has also been brought repeatedly before the Government. Bengal and the Punjab have no restriction on travel and there are now no grounds for maintaining the system.

Jan. 29th.

## THE PROPOSED LEGAL SHORTENING OF SHOP HOURS.

(FROM A CORRESPONDENT.)

THE passage in the King's Speech announcing that proposals for dealing with the hours of employment in shops will be submitted to Parliament this session is most welcome. It has always seemed an anachronism that whereas in most of the skilled trades strong adult artisans rarely work more than nine hours and sometimes only eight hours a day, young women are made to toil as shop assistants 12, and at times even 14, hours daily. Though the work may be defined as light work it is no light matter to have to remain standing all that time. Over and over again statistics, reports, and testimony have been published proving the excessive prevalence of varicose veins, displacements of the womb, and other evil consequences resulting from standing so long.

The Birmingham and District Early Closing Association has issued a handbill appealing to the public to take the matter in their own hands and to compel the shops to close early by refusing to shop late. But for one person animated with sufficient altruism to act up to this very reasonable suggestion there are scores who are ignorant and indifferent. Yet the movement is well supported. Favourable articles from the six leading Birmingham papers are quoted, as also the opinions of five well known practitioners of that town. Among these the late Mr. R. Lawson Tait said: "I have been horrified at the physical torture imposed by long shop hours. I have seen many a young woman whose epitaph ought to have been—Died from daily torture: 8 A.M. to 10 P.M." Mr. Jordan Lloyd says: "Weakened bodies and enfeebled minds are necessary consequences of prolonged confinement and monotonous occupation, whether behind the counter of a modern emporium or in the cell of an Eastern prison-house."

All this is sufficiently emphatic and what has been done in Birmingham to awaken the public conscience on the question has also been attempted in London and most of the large centres in this and many other countries. The principal result of an agitation which has now lasted for many years has been the securing in most towns of a weekly half-holiday for shop assistants and the passing of an Act compelling shopkeepers to provide seats. On inquiry, however, it would seem that the latter measure has been of little or no use. There are no statistics available, nor is it possible to speak in a very emphatic manner on this subject. Still, on questioning persons in the retail trade and secretaries of societies brought in contact with many shop assistants, I found that there is no enthusiasm manifested. Briefly put, the impression is that the legal imposition of seats has only done good as a means of propaganda. It has made people think about the matter and those employers who are animated by a kindly and humanitarian concern for their assistants have encouraged them to sit down when they could do so without neglecting their business. But this was done before the passing of the Act and these good, kindly employers are, it is painful to state, but a very small minority. Now the law has stepped in and says that seats must be provided. This is well so far as it goes, for people cannot sit down if they have no seats; but it does not follow that they will sit down when the seats are there. Let anyone observe as they enter our great emporiums how many shop assistants will be seen occupying the seats which the law insists must be provided. "Nothing succeeds like success," and the shopkeeper thinks that he will lose custom if he does not pretend to be very busy and successful. But if his shop assistants are seen sitting down it does not look as if they were very busy and therefore they must stand up and pretend to be busy even when there is no thing to do. The shopwalker is there ever pacing up and down. He does not sit down himself and is not perhaps particularly inclined to favour others who endeavour to secure a little rest. What can be done in this direction has been done voluntarily by good and considerate employers. The mere providing of seats does not in any way force the other employers to follow this example. Even if they did it is doubtful whether this would suffice. After all a shop assistant must stand up to serve the purchasers. Even the purchasers, as often as not, also stand up. The only really radical cure is to shorten the hours for shopping.

In these circumstances the Bill which Lord Avebury introduced into the House of Lords and which has now been printed by order of the House of Commons deserves careful consideration. In so far as it will contribute to shorten the hours of labour for shop assistants this measure is welcome. The phraseology of the Bill does not, however, indicate that the question at issue is approached from this point of view. A good deal has been said of late concerning the alleged physical degeneration of the race. There is no evidence to show that the "occupiers" of shops are physically degenerate. The term seems to imply the owner of a shop or his principal representative. In any case the "occupiers" only represent an insignificant minority of the population concerned and they are perfectly at liberty to sit down, to take holidays, and, in fact, to do whatever may be the most conducive to the preservation of their health. On the other hand, the great majority of those concerned enjoy no such freedom. Compelled by their poverty to accept employment at almost any terms they are subjected to a very severe discipline, have to remain on their feet for so many hours that the gravest physical injuries result, and to cope against such consequences they receive but a poor wage. By far the easiest means of mitigating these evils is to do for the shop assistants what has been done for children and women employed in factories—namely, to limit by law the hours of labour. A law to that effect is needed and this is the opinion generally held by all who have studied the question. The Bill before the House of Commons only proposes that this should be done in those localities where two-thirds of the "occupiers" of shops petition the local authority to enact a by-law to that effect. Surely if the limiting of the hours cannot be enacted without holding first a consultation with the trade concerned the persons to be consulted are those who suffer and who constitute the immense majority of the people affected. If there is to be a referendum on a question which so clearly affects the health of a large section of the population it is that section of the population in its entirety which should vote. The matter concerns the employers it is true but it concerns the employed very much more. The sale of goods must remain the same, whether the shops are open an hour or two more or less, for those trades that would be affected by earlier closing are excluded from the scope of the Bill, such as places for refreshment and for the sale of tobacco and newsagents. If, therefore, the same amount of business is done the "occupier's" main interest is secured, but to the people employed it is very important that their hours of work should not be so prolonged as seriously to endanger their health. The shortening of these hours is a matter of national concern. It is to the nation's interest, especially after recent disclosures that have rendered the danger of physical degeneration so evident, that the hours of work in the shops should be reduced. The nation therefore should decide upon this question instead of meekly waiting till the two-thirds of the "occupiers" shall in each district take the trouble to move in the matter. Under such a law years may elapse before this urgent reform is widely applied. Lord Avebury's Bill has been described as "a master's Bill" and what is wanted is a national measure instead of class legislation. Considering the large number of persons employed in the retail trade it is to the interest of the nation that the work of the shop assistants should be so regulated as to prevent its producing serious injury to their health.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*The Royal Southern Hospital: The Tropical Diseases Ward.*

THE committee in its annual report to the subscribers stated that in July last it was so seriously impressed by the financial position of the hospital that it considered it necessary to make a special appeal for donations and increased subscriptions. Although the result did not realise the expectations of the committee the sum of £1529 16*s.* was received and new and increased subscriptions were promised to the extent of £110. In spite of this assistance the adverse balance on Dec. 31st 1903 due to the bank amounted to £5325 2*s.* 6*d.* Mr. John W. Hughes has generously contributed £300 for enlarging, improving, and

lighting with electricity the x ray rooms, which would now make the department one of the most complete in the kingdom. The tropical diseases ward continues to justify its existence by the number and importance of the cases treated. During 1903 the patients were 149, as against 137 and 131 in the previous years. Year by year, therefore, testimony was afforded by this steady increase in numbers to the estimation in which it was held by those who entered the port in ships coming from tropical countries. As usual, the great bulk of these patients were suffering from malarial diseases alone or with serious complications. Other affections included dysentery, beri-beri, enteric fever, abscess of the liver, blackwater fever, bilharzia disease, craw-craw, sleeping sickness, enlarged spleen, &c. There were seven deaths. The nationalities represented were as follows: English, Irish, Scotch, Welsh, Manx, American, Canadian, South African, Indian, Chilian, Spanish, Portuguese, German, Austrian, Finn, Swedish, and Norwegian. There was also a constantly-growing number of students of the tropical diseases school in attendance. Those gentlemen were of many nationalities. It was probable that the institution of a diploma in tropical medicine contemplated by the University of Liverpool would still further attract students.

*The Hospital Sunday Fund.*

The amounts received representing the collections taken in the various places of worship on Jan. 10th show a falling off to the extent of £215, as compared with last year, but this adverse balance is lightened by the receipt of collections from new sources, which give a welcome lift of £75, so that up to date there is a net deficiency of about £140.

*Civic Grant to the University of Liverpool.*

At the monthly meeting of the city council held on Feb. 3rd it was unanimously resolved that a grant of £10,000 should be made during the current year to the University of Liverpool, to be paid out of the city rate and to be subject to the conditions that the council should nominate from time to time some person to make an inspection of the University and to report how far the methods employed were in the interests of the city and met its requirements; that the University should make an annual report in November to the council of its work, including a statement of accounts, particularly with regard to the amount voted by the city council, and that the city controller should inspect the same; also that of the sum of £10,000 not less than £1000 should be devoted to Liverpool scholarships, including the assistance of undergraduates and post graduates in the remission of fees in needy cases. The grant was based on a contribution of £5300 to the sustentation fund, £1000 for scholarships, and the remainder towards the establishment of two new chairs—one of English literature and the other of French. The grant of £10,000 was not an annual grant but no doubt it would be continued if the council should be satisfied as regards the expenditure and the expected benefits to the city. The grant would stimulate rather than discourage the munificence of wealthy citizens, inasmuch as the question of maintenance would be made easier.

*Sleeping Sickness at Uganda.*

An interesting lecture on "Trypanosomes and Sleeping Sickness at Uganda" was delivered in the zoology theatre of the Liverpool University on Feb. 12th by Colonel David Bruce, F.R.S., R.A.M.C., under the auspices of the Liverpool Biological Society. Professor Herdman presided over a good attendance. Colonel Bruce described how the trypanosomes, which are exceedingly minute blood organisms belonging to the lowest class of animal life, were first discovered in animals in India in 1877 and were spread by means of the tsetse fly, and the fact was then established that they set up sleeping sickness. Last year he was sent out as a commissioner by the Royal Society to Uganda for the purpose of studying the disease. The latter ran a course of from two to three years, sometimes more. For the first year or 18 months a man would apparently be free from illness and very often the disease would make itself known by undue signs of exultation on the part of the patient who instead of sleeping would be very much awake. The next stage would be depression and querulousness and it was in the last stage that the real symptoms would declare themselves. The sufferer would then lie about all day and would not get up even to feed himself. The disease attacked the brain, hence the lethargic condition. The trypanosomes were found not only in the cerebro-spinal fluid, but also in the circulating blood of the natives who were examined by him. Every case of sleeping sickness died; more than 100,000 natives of Uganda had died from it and some parts of the country had become quite depopulated. The disease was almost absolutely confined to the shore of Lake Victoria and the islands, and it was only in those parts where there were lofty forest trees and thick undergrowth on the edge of the water that the tsetse flies were found.

Feb. 16th.

## WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

*Cardiff Infirmary.*

THE sixty-seventh annual report of the board of management of the Cardiff Infirmary is a much more satisfactory document than many of its predecessors. Until three or four years ago the institution was often in difficulties. The expenditure frequently exceeded the available income so that invested funds had to be realised and it seemed well-nigh impossible to obtain much-needed improvements and additions to the buildings. For some reason or other the working classes of the town were not very large contributors to the funds although the institution was well supported by the principal inhabitants and by the colliers and workmen in the surrounding districts. All this is now altered and in 1903 one-third of the voluntary income was contributed by working people. It is thus possible to record a credit balance on the year's working of £371. The total expenditure was £11,806. There were treated during the year 1919 in-patients and 18,381 out-patients, an increase over the year 1902 of 41 and 2323 respectively. The average cost per occupied bed in 1903 was £65 and in 1902 it was £63. There is accommodation in the infirmary for 180 patients but the funds available will only admit of 154 beds being constantly used. In February, 1902, the board of management issued a supplementary report setting out in some detail certain requirements which were urgently needed to make the infirmary thoroughly efficient. The cost of each addition or improvement was definitely stated and in several instances the precise sum has been given by a donor for a specific purpose. In this way during the past two years no less a sum than £13,500 has been expended and the managers have very little more to ask for. The latest additions include an electrical pavilion, in which there is a waiting room; a room for photography, including a dark room for developing ordinary and x-ray photographic plates; an x-ray room; a room for high-frequency treatment, galvanisation, faradisation, and massage by electromotor; and a lupus room fitted with two Finsen lamps and an x-ray apparatus. Connected with this room is a dressing room. The cost of the pavilion, £1450, has been defrayed anonymously by a lady but £500 are still required for the appliances.

*Wells Cottage Hospital.*

The Cottage Hospital at Wells (Somerset), which was established in the year 1875 and has now accommodation for 13 patients, continues to be a most useful institution, and although the demands upon its accommodation are increasing there is a corresponding increase in the financial support given to the board of management. In 1902 there were treated in the wards 38 patients, while in 1903 this number had increased to 48. In 1901 there was an adverse balance on the year's working of £25, in 1902 there was a balance on the right side of £9, and last year the expenditure almost exactly equalled the income, thus showing that the administration of the hospital is in capable hands.

*Action for Damages against a Surgeon.*

An action for damages was brought at Newnham county court in January last against a surgeon, for alleged neglect while attending a boy, ten years of age. According to the newspaper reports the boy fell from a ladder in August of last year and dislocated his elbow and fractured his forearm. For two months he was under the care of the surgeon who declared at the end of that time that the arm was right. A week or more subsequently the boy was taken to two other practitioners who said that there was still a dislocation. The defence to the action was that some improper treatment or some accident must have occurred to the arm after the defendant had last seen it.

The county court judge, however, gave judgment for the plaintiff for £16. The amount claimed was £30.

*Death of Mr. Edmund Samuel Warburton, M.R.C.S. Eng., L.S.A.*

The medical practitioners of the Rhondda valleys have lost a valued colleague and the colliers a trusted friend and a skilled surgeon through the death on Feb. 6th of Mr. E. S. Warburton of Treherbert. He was born nearly 60 years ago in Cheshire and came of a family of medical men. After making several voyages as a ship's surgeon he settled in Treherbert in 1874, when the Rhondda valleys were beginning to be developed, and was appointed surgeon to several large collieries. He was a very able diagnostician and a most capable operator. Although educated in an older school he was always abreast of the times and ready to give his patients the advantages of the newest remedies; for example, when diphtheria was epidemic in the district a few years ago he was one of the first to recognise the value of the antitoxin treatment.

*Bristol Eye Hospital.*

The annual meeting of the subscribers to this institution was held on Feb. 8th under the presidency of the Lord Mayor. The annual report stated that during 1903 the in-patients numbered 486, being 21 in excess of those for 1902. The out-patients were 6869, being an increase of 915 compared with the previous year. The financial statement showed that the subscriptions received amounted to £660 and that an unfavourable balance of £593 remained.

*Taunton and Somerset Hospital.*

The annual meeting of the subscribers to this hospital was held on Feb. 11th. The report showed that 813 in-patients were admitted during 1903, against 824 in 1902; the out-patients numbered 4739, compared with 3968 in the previous year. The average daily number of in-patients was 77. The financial statement showed that the income was £5068 and the expenditure was £5190. The appeal issued by the committee for £4000 for alterations and improvements to the institution has up to the present realised £2407. The report alluded to the regret felt by the committee at the death of Mr. Samuel Farrant who for 30 years was an honorary surgeon to the hospital.

Feb. 16th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

*Aberdeen University Medical Society.*

THE last meeting for the winter session of this society was held on Feb. 12th, Dr. George Stoddart presiding. Dr. Hugh Maclean read a most interesting paper on Some Points in Cardiac Diagnosis. When a dilated ventricle was observed, aortic incompetence should always be suspected and confirmation in other ways sought for. A water-hammer pulse was but a rare sign in aortic incompetence, because this was generally accompanied by some mitral regurgitation which served to keep up the blood pressure. It was the best possible training for diagnosing cardiac troubles previously to determine by methods other than the stethoscope all the abnormalities that could be so determined, and then to use the stethoscope to check or to confirm the diagnosis. Though of great use the stethoscope was not the only or the most valuable means of arriving at a correct diagnosis. An interesting discussion followed and on the motion of Dr. Stoddart, Dr. Maclean was accorded a vote of thanks for his paper. Office-bearers for the ensuing session were then elected.

*Kingseat Asylum.*

At Kingseat there will be opened in a week or two the first villa or segregate asylum, not only in Scotland but in Great Britain. The idea of a villa asylum—a most rational one—was brought to this country by Sir John Sibbald after a recent visit to the continent, and Aberdeen has been the first to teach the lesson of Alt Scherbitz, near Leipsic, so that Kingseat Asylum will now be the Mecca of alienists for some years. It is at present almost ready to open its villa and hospital doors to 472 patients and when completed some years hence it will accommodate 700. One of the remarkable features of this asylum is the economical cost of construction, affording as it does an object-lesson to every asylum board in Scotland. The following is taken from a statement by Mr. A. Marshall Mackenzie, the architect of the asylum.

*Comparative Cost of Glasgow, Lanark, Govan, and Kingseat Asylums per Bed available for Patients immediately after Completion.*

| — | Price per bed for buildings. | Price per bed of total cost of scheme, including land, buildings, and furnishings. |
|---|---|---|
| | £ s. d. | £ s. d. |
| Glasgow ... ... ... | 426 7 2 | 466 6 6 |
| Lanark ... ... ... | 304 17 1 | 348 5 2 |
| Govan ... ... ... ... | 392 3 1 | 461 9 0 |
| Aberdeen (Kingseat) | 208 15 2 | 253 10 11 |

The above represents more than the true cost per bed of the asylum at Kingseat when completed, as meantime the general section, including laundry and power house, steam boilers, &c., electric plant and cables, kitchen and stove, administrative buildings, recreation hall, lodges, medical superintendent's and steward's houses, water and sewage works, and also the hospital, has accommodation proportional to an asylum with beds for 700 patients. When the asylum is in future increased to 700 patients, all that remains to be provided is additional villa buildings and furniture. Having in the contracts kept the cost of all buildings separate, I am able to arrive at the extra cost of villas and find that to accommodate the 228 extra patients the sum of £26,817 10s. would be required for buildings and furniture. This reduces the cost per bed of the asylum at Kingseat, when completed to accommodate 700 patients, to £179 15s. 2d. for buildings, &c., and £200 19s. 2d. for the total cost of the complete scheme, including land, buildings, and furnishings. In conclusion, I desire to say that from first to last my aim has been so to design these buildings in all their details that, while being thoroughly efficient and complying in every way with all the latest improvements and the requirements of the General Board of Lunacy, they shall at the same time be the most economically constructed asylum in the country. This I claim it to be.

There is the greatest contrast in the world from any point of view between what we have been accustomed to look upon and this new villa asylum. The days of vast and costly piles of buildings are over and if asylums ever come to be required no longer any householder wishing to live a quiet country life can purchase a villa. The buildings can never be lost, like many of our public institutions, tier above tier and stretching in one line for hundreds of yards, with rectangular blocks jutting out on both sides. Little wonder if the hard headed Aberdonian claims it to be the best and cheapest asylum in the world.

*Appointment of Medical Superintendent of Inverness Asylum.*

At a meeting of the Inverness district lunacy board on Feb. 12th, Major Stirling presiding, Dr. Robert B. Campbell of the Crichton Royal Institution, Dumfries, was appointed medical superintendent of the Inverness District Asylum in room of Dr. J. Keay, who has received the appointment of medical superintendent of the Bangour Asylum, Edinburgh. Dr. Campbell was for a short time in general practice after graduation but since 1896 he has devoted himself exclusively to the study and treatment of insanity. He was assistant physician at Inverness Asylum in 1896, then senior assistant at the Montrose Royal Asylum, and latterly at Dumfries. The salary of the new appointment amounts to £500, with free house, fire, and light.

*Changes at the Royal Infirmary, Aberdeen.*

Dr. J. Mackenzie Booth has resigned owing to ill-health and intends to leave soon for Egypt. Dr. J. Scott Riddell has succeeded consequently to No. 2 ward, while Mr. H. M. W. Gray has been appointed to No. 1 ward.

Feb. 16th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Legal Action for Personal Injury caused by the Use of the Roentgen Rays.*

A CASE of much medico-legal interest has recently been tried in Dublin before Mr. Justice Gibson and a special jury. The action of McCullagh *v.* The President and Professors of the Queen's College, Galway, William Haire, and Dr. N. W. Colahan was commenced on Feb. 4th, when the plaintiff, a child, suing through his father, sought to recover damages for personal injuries caused by the alleged negligence of the defendants in the use of certain electrical apparatus.

Mr. O'Shaughnessy, K.C., opened the case for the plaintiff and described the manner in which the child—who is between seven and eight years of age—was subjected to the Roentgen rays for the purpose of searching for a needle which was supposed to have penetrated his knee. Counsel said that the child was subjected for 20 minutes to the Roentgen rays, under the supervision of Dr. Colahan, the radiograph having been taken by the defendant Haire. Whether the instrument was out of order or whether those who used it did not know how to use it properly no result was achieved. Counsel stated that during the operation the vacuum tube, instead of being kept away from the leg was within two or three inches of it and the boy was subjected to the rays twice. Two of the operations took place on Dec. 26th, 1902, and as a result of these the boy suffered great pain. When the bandage was removed on Dec. 29th it was seen that the leg was burned. During succeeding days it became worse and the boy was taken to hospital. In the month of April, when he was better and out of hospital, Dr. Colahan ordered the patient to be subjected to the rays and he was taken to the College and the rays were applied. Finally, his mother, on account of the pain the child was suffering, took him to Dublin where he was seen—as counsel stated—by Mr. J. S. McArdle who sent him to Mr. Lewis to be subjected to the rays. Mr. Lewis, seeing that the leg was burnt, declined to apply the apparatus. The plaintiff's mother then took him to Dr. J. Lentaigne who would tell the jury that the child had been burnt by the Roentgen rays. Many witnesses were examined for the plaintiff including Dr. W. S. Haughton, demonstrator of x rays in Trinity College, who said that the ordinary working distance of an x-ray apparatus was from 12 to 24 inches. Dr. Lentaigne said that when the case was admitted to the Mater Misericordiæ Hospital there was an ulcerated patch four inches by three and a half inches on the inside of the knee. Mr. Henry, K.C., in his address on behalf of Dr. Colahan, said that it would be impossible for the radiograph of April 22nd to have been taken if the globe were held within two inches of the limb and that they intended to produce x-ray experts from England. On Feb. 9th Dr. H. Lewis Jones, medical officer in charge of the electrical department of St. Bartholomew's Hospital, London, Mr. J. Hall-Edwards, surgeon in charge of the x-ray department at the Royal Orthopædic Hospital, Birmingham, Sir Charles B. Ball, Sir Thornley Stoker, Mr. McArdle, and other witnesses were examined for the defence, their evidence tending to show the rarity of injury by the application of the Roentgen rays, the absence of any indication of improper use of the apparatus in the radiographs produced, and generally to disprove the story of the plaintiff's witnesses as to the manner in which the rays were applied. Several questions were left by the learned judge to the jury who found that the sore complained of was caused by the rays but that the Queen's College had no responsibility in the matter. With regard to Mr. Haire, the mechanical assistant to the Professor of Natural Philosophy at the College, and Dr. Colahan, both of whom had taken radiographs of the child's knee, they found that each had by what he had done contributed to the condition of the child's knee but absolved both alike from any charge of negligence in the matter, the net result being a verdict and judgment for all the defendants upon the various issues raised.

*Royal College of Surgeons in Ireland.*

The annual dinner of the Royal College of Surgeons in Ireland was held in the College on Feb. 13th, under the presidency of Sir Lambert H. Ormsby. The occasion was honoured by the presence of the Lord Lieutenant.

*Londonderry City and County Infirmary.*

An influential deputation appeared before the Londonderry county council on Feb. 11th to request a contribution towards the payment of improvements recently carried out in connexion with this institution. A sum of £3120 2*s.* has been received from private subscriptions. According to the Local Government Act, one-third of this amount could be subscribed by the county council and the county borough of Londonderry. The county's proportion would be £169 17*s.* 2*d.* and the county borough's £870 3*s.* 6*d.* The matter has been referred to the finance committee of the county council and there is a strong feeling in favour of granting the request.

*The Belfast Water-supply.*

At a meeting of the Belfast Water Commissioners, held on Feb. 11th, the chairman mentioned that since September, 1901, the Mourne water has been brought from the Annalong river, yielding a continuous daily supply of from 3,000,000 to 11,000,000 gallons. The whole length of the first section of the Mourne scheme was in full working order and in addition the short length of the main conduit which lay between the Kilkeel and Annalong valleys was now complete and capable of bringing the water from the Kilkeel river. By this tunnel water will be brought a distance of 40 miles to Belfast. In reply to queries as to whether there was any truth in the statement that there was something wrong in the scheme for a reservoir in what is known as the Silent Valley in the Mourne Mountains it was stated that it was now beyond any question of doubt that this reservoir embankment could be completed in a slightly altered line at less cost than was originally estimated. At present there was an ample supply of water for the city of Belfast and so the new reservoir at the Silent Valley would not be required, but when needed it could easily be constructed.

*County Down Infirmary.*

During the past year 505 patients were admitted to this infirmary, being 103 in excess of the previous year, and in addition there were 37 who were in the hospital on Jan. 1st, 1903. There were 845 extern cases. Open-air shelters are needed for the tuberculous patients, who form 15·4 per cent. of the total annual admissions, and better accommodation is asked for the extern cases. The total income for the year 1903 was £1910 2*s.* 7*d.*, exceeding the expenditure by £210 7*s.* 3*d.*, but as £100 of this is a special grant from the county council for the introduction of a water-supply the actual balance towards the revenue account of the infirmary is £110 7*s.* 3*d.* The average number of beds daily occupied was 38.

Feb. 16th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*The Information Bureau of the University of Paris.*

ON Feb. 10th the official opening of the Information Bureau of the University of Paris took place. The opportunity was taken for an official visit of the committee of the municipal council of Paris and of the council of the University, the two forming one grand committee to be known under the name of the Conjoint Committee for the common interests of the City of Paris and of the University. The Vice-Rector of the University, M. Liard, is president. Numerous press representatives, both French and foreign, were present at the opening, at which there was the usual interchange of ceremonious speeches between the Vice-Rector and M. Dausset, the president of the fourth committee of the municipal council. As a matter of fact, the bureau has been in working order since August, 1903, and I have previously given your readers an account of it,[1] for it will certainly be capable of rendering great service to foreign travellers and men of science and letters. The offices of the bureau are in a magnificent room in the Palace of the Sorbonne and are luxuriously furnished and decorated. Here are to be found employés speaking French, English, German, Spanish, and Russian, together with every information necessary for those seeking opportunities for studying in Paris. The information is all classified, so that anyone who wishes to study any particular question will find all books and documents which are able to help him with regard to lectures, conferences, museums, libraries, societies, journals, and the like. Information is also kept as to the hours of opening of museums and libraries and the conditions governing admission, while a large map of Paris is available to show the stranger his way. The bureau is on the telephone exchange and is under the general direction of Dr. Blondel, the general secretary of the International Association of the Medical Press. The advantages which this institution will offer to the large number of strangers who come yearly to Paris to avail themselves of the sources of information which that city possesses to so great a degree are obvious and it already has some 3000 indexed catalogues of subjects. Hitherto the multiplicity of catalogues, indices, calendars, and the like, the multiplication of places for obtaining information and their distance the one from the other, together with the difficulty which the stranger not well acquainted with the language experienced in obtaining information, often discouraged him. Since

[1] THE LANCET, Jan. 17th, 1903, p. 207.

the bureau commenced operations many hundreds of English medical men and students of medicine have availed themselves of its services and have expressed themselves delighted at the help so given.

*Opposition to a Sanatorium for Tuberculous Patients.*

I have already mentioned that the Assistance Publique in Paris had decided to establish a model sanatorium for tuberculous patients at Montmorency on ground belonging to the Duc de Dino, admirably situated from the hygienic point of view. All the preliminaries were completed and everything was in readiness for commencing work when about 100 property owners in Montmorency and the adjoining communes took united action under the presidency of the senator for Seine-et-Oise to oppose the institution, alleging that it would be the ruin of Montmorency and the neighbourhood. Such hostility is very annoying and behaviour of this kind betrays inability to understand the true interests of France. It is impossible for a great city to accommodate all its hospital institutions within the municipal boundary, especially a hospital for the isolation of tuberculous patients. It was difficult enough to persuade the Government that an important means of preventing the disease consisted in isolating the patients instead of allowing them to die in the general hospitals where they become foci of infection; it is therefore to be hoped that the progress which is being made in the right direction may not be checked by claims put forward on behalf of private interests.

*Yoghourt.*

At the meeting of the Academy of Medicine held on Feb. 2nd M. Saint-Yves-Ménard read for M. Dybowski of Adabazar in Asiatic Turkey an interesting communication on a preparation derived from milk and called yoghourt. In Turkey there is a great consumption of the milk of the buffalo, the common cow, the goat, and the ewe, but it is hardly ever used in the natural state. It is kept at a moderate heat—about 80° C. or 176° F.—until its bulk is reduced to one half, and after gradual cooling it is treated with a ferment taken from the previous day's supply. In some hours a curd forms which is called yoghourt. It is said to have a pleasant taste and forms together with bread the principal part of the food of the rural population. This preparation is preferred to milk. It not only has the nutritive value of the latter in a small bulk but it also possesses a diuretic property which is very useful in heart disease, in dropsy, and in the eclampsia of pregnancy.

Feb. 15th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

*Battle of the Clubs.*

A CONGRESS of the German sick clubs was held at Leipsic on Jan. 25th for the purpose of discussing the measures to be taken in opposition to the demands of the medical profession. As already described in THE LANCET, membership of a sick club is compulsory under the Workmen's Insurance Act in Germany, so that the clubs have an enormous number of members, and the medical profession, especially in the industrial towns and districts, is largely dependent on the goodwill of the club committees. The fees paid in club practice are extremely low and, what is still worse, only a limited number of medical officers are appointed. In some places such positions can be obtained only by practitioners who are either acquainted with members of the committee or are known to belong to the Socialist party. Some years ago, first in Berlin and afterwards in other towns, the so-called "free-choice" movement began in the profession, its object being to admit every medical practitioner of a locality to club practice provided that he was willing to accept the club fees; the clubs had to pay a certain annual sum for every member and the aggregate proceeds were eventually divided among the various practitioners according to the number of consultations, visits, operations, &c., which had fallen to the share of each. In course of time the movement spread throughout Germany and though it worked quite satisfactorily in a good many clubs it was nevertheless strongly opposed not only by other clubs but also by certain medical men who, as club officers appointed at fixed salaries, were afraid of losing a considerable part of their income by the introduction of the "free-choice" system. A few years ago the encroachments of the clubs were resisted only by local organisations of the medical profession, so that in the case of a difference between the club and the local profession the club had only to appoint medical men coming from other places who were anxious to engage in practice and were therefore willing to accept any fee, even the lowest, offered to them by the clubs. Recently, however, a general association was founded at Leipsic, the so-called Leipziger Verband, for the purpose of organising resistance on a larger scale. The Leipziger Verband is in connexion with the old established practitioners' association—the Deutsche Aerztevereins-Bund—and works on lines similar to those of the trades unions. It has collected a large strike fund and in certain cases has already organised successful strikes. It has local branches everywhere and whenever a difference arises between a club and its medical officers mediation is first tried, and if mediation is unavailing then a strike is proclaimed. The association inserts advertisements in the medical and general press warning medical men against settling in the locality where the conflict prevails and any practitioners who may have been appointed under contract by a club are paid a sum of money on condition that they leave the town at once. The latest event of this kind happened at Cologne where the profession had engaged in a strike against the clubs, demanding the introduction of the "free-choice" system together with a considerable augmentation of the fees. Notwithstanding the endeavours of the clubs only 20 medical men were found who consented to act as medical officers to them. These clubs had 150,000 members and the result naturally was that the medical attendance on cases of sickness and accident was quite unsatisfactory. As the clubs, though possessing full powers of self-government, are, as public institutions, to a certain extent under the control of the Government, the latter intervened by ordering the club committees to provide within three days a sufficient number of medical men, the alternative being that in case of default the Government in exercise of the power conferred on it by the law would dissolve the committees and would have the clubs managed by a Government commissioner. The clubs accordingly were forced to enter into negotiations with the profession and to comply with the demands of the local branch of the Leipziger Verband, which undertook to pay off the 20 newly appointed medical men and to organise the medical service of the clubs. The successes obtained by the profession, not only at Cologne but in other places likewise, and due principally to the existence of an organisation on a large scale, have greatly excited the leaders of the workmen's sick clubs who have now combined together with a view to defeat the policy of the medical men, and their congress held at Leipsic was therefore well attended by delegates from a good many of the large clubs. The report of the committee explained that the unsatisfactory condition of the medical profession was not due to the club system but to general overcrowding of the profession and that the relation of the clubs to their medical officers must not be regarded as that of employers to employed, the clubs, though compulsory, being charitable institutions. The "free choice" system was not opposed as a matter of principle, but its introduction must take place by common agreement and not by order of a medical trade union or by legislation. The drawback of the "free-choice" system from the standpoint of the clubs was, according to the report, that under it not only medical fees but also the cost of medicine and maintenance increased in an enormous degree. The report was in favour of legislation enacting that in the event of a medical strike the medical men should be obliged to attend provisionally the club members at a fixed rate until the matter was settled, so that a strike would be practically rendered illegal. After a long and animated discussion, in which also delegates of clubs adopting the "free-choice" system spoke, the congress passed a resolution to the effect that the introduction of the "free-choice" system by legislation or by a medical trade union was undesirable and that any intervention of the authorities, as in Cologne, was deserving of censure.

*The Preservation of Milk.*

Professor von Behring, whose views on the origin of tuberculosis are well known, has recently directed his attention to methods of artificial feeding and the preservation of milk. In an article published in the *Therapie der Gegenwart* he says that fresh milk taken from a cow under every possible precaution against contamination contained at least from 100 to 200 germs in every cubic centimetre. Milk

taken by the usual method contained many thousand germs per cubic centimetre. In order to avoid chemical alteration of milk he recommended not sterilisation by boiling but the addition of formalin. One gramme of this substance (a quantity too minute to be tasted at all) was sufficient to preserve 4000 grammes of milk for eight days In a large farm where many newly-born calves died within 48 hours from an epidemic termed "Kälbersterbe" artificial feeding of the calves on milk containing formalin had the effect of making the mortality at once decrease. Professor von Behring has also obtained experimental results which are important with respect to tuberculosis. According to the views explained by him at the Medical Congress in Cassel tuberculosis arose in the early days of life and was conveyed by the milk through the intestinal wall of infants. He has also ascertained that milk from cows which were immunised against tuberculosis contained certain substances highly antitoxic against tuberculosis. Bacterium coli might be advantageously used in the study of the antitoxins of milk. When a quantity of these bacteria were added to milk yielded by immunised cows the number of germs decreased from 700,000 to 4000 within 24 hours and to 200 within 48 hours, but by previously boiling the milk for one hour the antitoxic substances were destroyed and even the action of formalin was neutralised. Veterinary surgeons were already aware that the enteritis of calves caused by the bacterium coli might be avoided by feeding them with fresh cows' milk, whilst the administration of sterilised milk produced fatal diarrhœa. Professor von Behring was of opinion that the great mortality of infants might also be due to the administration of sterilised milk. The best nourishment was, of course, the milk from the mother, but when this was not available genuine unsterilised cows' milk should be used. He hoped to be able to produce a milk free from the germs of tuberculosis, the cows being immunised at an early date by preventive injections. By addition of formalin the milk might be preserved and made fit for transport. The attention of the Government has evidently been directed to Professor von Behring's proposals as during his last visit to Berlin he had an interview with the sanitary authorities.

Feb. 15th.

# Obituary.

## HENRY ROBINSON, L.R.C.P., L.R.C.S. EDIN.

By the death of Mr. Henry Robinson the medical profession in Chesterfield loses its doyen and an interesting link between the immediate past and the present is broken. He was born in Chesterfield where the family to which he belonged was well known and highly respected. At the time when he chose medicine for his profession it was still the custom to enter it by the way of apprenticeship. He accordingly became apprentice to Dr. Holland and after his death to his successor, Dr. Charles Booth, who subsequently became Mr. Robinson's brother-in-law. At a later period he passed to the wider sphere of the University of Edinburgh but as domestic causes unfortunately hindered him from graduating in the University he took the qualifications of L.R.C.S. and L.R.C.P. Edin. in 1863 and returned to his native town, where his professional ability, his gentle and pleasing personality, and his family connexions speedily secured to him a busy and lucrative practice. Despite the cares this incurred he yet found time for occasional contributions to medical literature. A case of Pregnancy with a Perfect Hymen was described by him in THE LANCET of August 7th, 1869, p. 223, and he was one of the first to call attention to laburnum poisoning in a communication to the *British Medical Journal* in 1883. As for local medical records, he was a perfect mine of wealth and his recollections were always at the service of his younger brethren, in spite of the fact that during his later years his impaired health enforced on him an almost complete retirement.

## GEORGE HADDOW, M.B., CH.B. EDIN., D.P.H. CANTAB.

Dr. George Haddow, whose death at the age of 29 years occurred recently in the Royal Infirmary, Glasgow, was the eldest son of Mr. James Haddow, Springbank, Falkirk, and studied medicine at Edinburgh University, where he graduated with first-class honours. After a voyage round the world as medical officer on board the s.s. *Rakaia*, belonging to the New Zealand Steam Navigation Co., he took the diploma of D.P.H Cantab. and settled down to practise in the Shettleston district of Glasgow about eighteen months ago. Of a genial and warm-hearted disposition Dr. Haddow soon gained the esteem and affection of his colleagues and the people of Shettleston and the keen anxiety which was manifested by all classes during his illness bore eloquent testimony to the high place he had attained in their regard. The funeral, which took place at Falkirk, was attended by a large and sympathetic gathering.

# Medical News.

UNIVERSITY OF CAMBRIDGE.—At a Congregation on Feb. 11th the following degrees were conferred:—

*Doctor of Medicine.*—J. C. S. Rashleigh, Trinity.
*Bachelor of Medicine.*—G. T. Birks, King's.
*Bachelor of Surgery.*—A. Wylie, Pembroke; and E. Bigg, Gonville and Caius.

In the Easter term the Final M.B. examination (medicine, surgery, and midwifery) will begin on April 26th; the M.C. examination will begin on April 28th. Candidates for either examination must send their names to the registrar by April 14th.—The programme relating to the visit of the King and Queen to the University on March 1st has now been published by the Vice Chancellor. The Vice-Chancellor will meet their Majesties, who will be accompanied by H.R.H. Princess Victoria, at the Great Northern railway station and will conduct them to the Senate House. Here the Queen and Princess Victoria will remain while the King will proceed to the University library to join the Chancellor's procession. The Chancellor's procession will enter the Senate House for Congregation, after which their Majesties and Princess Victoria will proceed to the Fitzwilliam Museum for luncheon. The first visit after luncheon will be to the medical school where the Regius Professor of Physic, the Downing Professor of Medicine, the Professor of Surgery, and the Professor of Pathology will receive their Majesties for the opening of the new medical school buildings. Next will come an inspection of the new law school and of the new botanical laboratory, and, lastly, their Majesties will proceed to the Sedgwick Museum and there unveil the statue of Professor Sedgwick. Post cards, to be filled up as applications for seats in the Senate House during the ceremony, will be sent to all members of the electoral roll. Non-resident Doctors of Medicine wishing to take part in the procession should apply to the Vice Chancellor, Queens' College Lodge, not later than to-day (Saturday, Feb. 20th). Doctors of Medicine will wear scarlet.—The regulations for a new examination for a diploma in tropical medicine and hygiene were issued on Feb. 13th. Any person whose name is on the Medical Register is admissable as a candidate subject to certain conditions and fees. All applications for information respecting the examination should be addressed to Mr. G. F. H. Nuttall, University Pathological Laboratory, Cambridge.

TRINITY COLLEGE, DUBLIN.—At examinations held in Hilary term the following candidates were successful:—

*Final in Medicine.*—Herbert St. M. Carter, Arthur W. Goldsmith, Wright Mitchell, Owen J. Parry-Edwards, Henry M. Crawford, John C. Hall, Wilfrid Thunder, William J. M'Iver, and David C. Pearson.
*M.B.*—Robert Moore.

THE KILMARNOCK INFIRMARY.—The total number of patients treated in this institution during the year ending Nov. 11th, 1903, was 1273, a decrease of 55 compared with the previous year—viz., 335 fever patients, against 392; 390 medical, against 398; and 548 surgical, against 538. In addition, 167 out-patients were treated for accident and other troubles who did not require to remain in the hospital. The average daily number resident in the various wards throughout the year was 106 compared with 118 in the previous year. The total income for the year was £4742 4*s.* 11*d.*, being £339 1*s.* 1*d.* less than the income of the previous year; and the total expenditure was £5390 4*s.* 2*d.*, a decrease of £85 15*s.* upon the past year.

The general subscriptions amounted to £789 14s., being £19 16s. 9d. less than the previous year. The employés' subscriptions were £841 18s. 9d., a decrease of £291 7s. 3d.; and the church contributions amounted to £271 15s. 9d., an increase of £8 12s. 9d. The expenditure has exceeded the income by £647 19s. 3d., and the loss in maintaining the institution during the past two years has amounted to nearly £1042.

DEATH OF DR. D. R. GUNS.—The untimely death is recorded of Dr. D. R. Guns, house surgeon to the Royal Infirmary, Newcastle-upon-Tyne. He was only 25 years of age, was qualified last September, and entered the infirmary as house surgeon about a fortnight ago. A few days since he developed double pneumonia and died on Feb. 13th. Although cut short at the very commencement of his professional career he had gained for himself a host of friends and had already given promise of a brilliant future.

SOCIETY OF ARTS.—At a meeting of this society, held on Feb. 10th, Professor C. Vernon Boys delivered an address on Thermit, at the same time showing a variety of lantern pictures, samples of thermit welding both rough and in section, and requisites for the process. Thermit is a mixture of aluminium and iron oxide; it has the appearance of small black elongated grains resembling short lengths of very slender "pencil lead" and not unlike the gunpowder used for sporting purposes. When ignited it produces a temperature of at least 3000° C. and therefore much above the melting point of platinum and the dissociation temperature of the products of the combustion of carbonaceous fuel. The combustion products of thermit are molten pure iron (not cast iron) and molten alumina, both of them at such a temperature that they will instantly melt a hole in boiler plate and run through it. Its ignition point is so high that ordinary combustibles have no effect on it and it is usually ignited by contact with a burning mixture of aluminium and peroxide of barium which can be easily set on fire with a match. Before being lighted the thermit is put into a crucible lined throughout to a depth of about an inch with magnesia.

EDINBURGH UNIVERSITY GRADUATES' ANNUAL DINNER, NEWCASTLE UPON TYNE.—The second annual dinner of the Edinburgh University graduates was held in Newcastle-upon-Tyne on Feb. 12th. Dr. Frederick Page, professor of surgery in the University of Durham, occupied the chair. The guest of the evening was Sir William Turner, K.C.B., Principal of the University. About 55 sat down to dinner, amongst whom were Professor Sir G. H. Philipson, Professor R. Howden, Professor T. Oliver, Dr. T. W. McDowall (Morpeth), Dr. David Ridpath (Sunderland), Dr. J. W. Smith, Dr. J. Limont, and Dr. J. S. McCracken. Dr. Smith submitted the toast of "Alma Mater." In a very interesting speech he traced the history of the Edinburgh University and College of Medicine since its inception and mentioned the names of many of its most distinguished alumni, especially Joseph Black, William Cullin, James Gregory, Sir Douglas Maclagan, Thomas Locke, Sir Joseph Lister, and Sir James Simpson. He mentioned the fact that the two greatest blessings to humanity and the medical profession—chloroform and antiseptics—were both discovered by Edinburgh men. Sir William Turner also spoke and said that the University, notwithstanding its 300 years, had an extremely good constitution. It had a power of retaining its youth and of recuperating itself from time to time. It had a great history to live up to and those who were in office realised their responsibility. He spoke for his colleagues and for himself when he said that they intended, as far as human means allowed them, that the University should keep its place. In conclusion, Sir William Turner expressed the hope that their warm love for the old University would long continue. Professor Page proposed "Our Guest." He described Sir William Turner as one of the most distinguished anatomists in Europe and also as a teacher of unexampled experience and success. Responding, Sir William Turner said that if a man was to rise to any position as a teacher there must be sympathy between him and those whom he had to teach. He mentioned a curious fact connected with the anatomical chair of Edinburgh. It was founded in 1720 and up to the month of January last year there had only been five professors in the chair. He took that as an evidence of the healthiness of the occupation of a professor of anatomy. The concluding toast, "The Chairman," was proposed by Professor Howden and was duly responded to.

MEDICAL BARRISTER.—Mr. Lewis Lewis, M.D. Durh., who formerly practised in Plymouth and in Brixton, was on Jan. 26th called to the Bar at the Middle Temple.

SANITARY ASSURANCE ASSOCIATION.—The twenty-third annual meeting of the members of this association was held on Feb. 15th, at the offices, 5, Argyll-place, London, W., Mr. Andrew Stirling, the President, being in the chair. In the annual report the council expressed regret that the principle of the Sanitary Registration Bill, promoted by the association, had not yet received the sanction of Parliament. The income of the year was £202 15s. 7d. which, after meeting all liabilities, left a balance in hand. The report was adopted on the motion of the President, seconded by Mr. Mark H. Judge, and the retiring members of the council, Mr. Walter Butler and Dr. E. F. Willoughby, were re-elected.

MANCHESTER AND SALFORD SKIN HOSPITAL.—At the annual meeting of the supporters of this hospital, which was held on Feb. 2nd under the presidency of the Lord Mayor, a strong case was brought forward for more room. The attendances made last year by patients were 64,130, of which 29 948 were for "light" treatment, a considerable increase on the previous year. The patients were not only from the Manchester district but from places as remote as Aberystwyth, Colwyn Bay, Blackpool, Douglas, Huddersfield, Oswestry, and Windermere. The "light" treatment had been satisfactory; a number of cases of lupus and other tuberculous affections of the skin had been discharged cured. In addition to the use of the Finsen-Reyn lamp the staff recently began to work with radium; but, as Dr. H. A. G. Brooke said, it was too early yet to speak of its action. He emphasised the need for more beds, saying that they could deal with the out-patients fairly well. Dr. R. B. Wild also strongly urged the same plea. There are two beds for men, which provision "was not only inadequate but ludicrous," four for women, and none for children. They hoped to provide 30 beds in the new hospital which would enable them to admit all the acute cases. For the contemplated new hospital a sum of £35,000 is needed and as £25,271 have been provided it has been decided to begin to build immediately.

LECTURES ON MEDICAL JURISPRUDENCE.—On Feb. 11th Dr. F. J. Waldo, coroner of the City of London, delivered a lecture on Poisoning in its Medico-legal Aspects at the Old Hall, Lincoln's Inn. The chair was occupied by Judge Marten, K.C., as representative of the Council of Legal Education. It was pointed out that neither lawyers nor medical men had any universally accepted definition of the term "poison." It would be obviously incorrect to call vitriol a poison when thrown into another person's face with intent to commit bodily injury. On the other hand, if administered internally the vitriol would be considered a poison both by lawyers and by medical men. Powdered glass, again, formed an extremely ancient method of causing death by mixing it with food. For all that it was not a poison although it killed after internal administration. The "poison" must, in other words, not only be taken internally but must exert some kind of chemical action upon the tissues. The Sale of Poisons or Pharmacy Act, 1868, was discussed at length by the lecturer who pointed out various ways in which its scope of usefulness might be enlarged. He agreed with Dr. W. Wynn Westcott in recommending the addition of the strong mineral acids, ammonia, and certain other poisons to the scheduled list. The evidence of poisoning as produced in court was then considered. The simulation of various diseases by poisoning and *vice versâ* was described, as, for instance, the similarity of lockjaw and strychnine poisoning and the resemblance of slow arsenical or antimonial poisoning to typhoid fever. The important subject of the evidence of poisoning to be derived from an examination of the dead body was exhaustively dealt with. The limitations and the powers of chemical analysis were described. In the case of some powerful alkaloids the dose was so minute that it would be almost impossible to detect their presence. Fortunately, both clinical and moral evidence was often available in these cases. The lecture was followed with interest by a large audience. This special course of evening lectures, open alike to the public as well as to lawyers, follows those already given by Judge Willis, K.C., Mr. Fletcher Moulton, K.C., M.P., Mr. Birrell, K.C., M.P., Dr. Blake Odgers, K.C., Sir Harry Poland, K.C., and other eminent lawyers.

# Parliamentary Intelligence.

## NOTES ON CURRENT TOPICS.

*Proposed Amendment of Medical Act, 1886.*

GENERAL LAURIE'S Bill to amend the Medical Act, 1886, is supported by Sir Walter Foster, Sir John B. Tuke, Mr. Rothschild, Sir Howard Vincent, Mr. Middlemore, and Sir Mancherjee Bhownaggree. The following memorandum is circulated with the text of the proposals: "In order to facilitate the admission of colonially trained and registered medical men to practise in Great Britain and hold appointments in the imperial service the Act of 1886 provided for reciprocity between the mother country and such of the self-governing colonies as might comply with certain conditions, but that Act expressly stipulates that when any colony had a provincial and a federal organisation such reciprocal arrangements should be entered into with the federal government and not the provincial. In the case of Canada the British North America Act of 1867, enacted by the Imperial Parliament, expressly provides that education shall be entirely under the control of the provincial and not the federal governments, so that it is impossible to bring the Act of 1886 into force with Canada. It is impracticable to amend the British North America Act of 1867 and to transfer the control of education to the federal authorities, and therefore it is the object of this Bill to amend the Medical Act of 1886, without in any way interfering with the principle and to enable reciprocal arrangements to be entered into either with the federal or provincial governments."

*Registration of Nurses.*

Dr. R. FARQUHARSON'S Bill to regulate the qualification of trained nurses and to provide for their registration has been put down formally for second reading on Monday. It is backed by Mr. Haldane, Sir Thomas Wrightson, Sir James Joicey, Sir John Tuke, Mr. H. C. Smith, Mr. Munro Ferguson, Mr. Tennant, Mr. Black, Mr. Colston, Mr. Eve, and Dr. E. C. Thompson.

## HOUSE OF COMMONS.

THURSDAY, FEB. 11TH.

*Care of Lunatics.*

Mr. J. P. FARRELL asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to a resolution passed at a conference of representatives of the Irish district asylum committees on Nov. 26th last in favour of the system of taking family care of persons of unsound mind which was practised on the continent and Scotland, and if so, whether he intended to propose any legislation with a view to having the system legalised in Ireland as well as England and Scotland.—Mr. WYNDHAM replied: The resolution has been received but I cannot give an undertaking that the Government will introduce legislation dealing with the matter during the present session.

Mr. FIELD asked the Chief Secretary to the Lord Lieutenant of Ireland whether he had received a copy of resolutions adopted by the conference of asylum committees at a meeting held in Richmond Asylum on Nov. 25th and 26th last; and, if so, whether he would state if he proposes to deal with the points raised?—Mr. WYNDHAM answered as follows: The resolutions propose (1) an increase of the present capitation grant of 4*s.* per week in respect of the maintenance of each pauper lunatic; (2) an extension of the period for, and alteration of the conditions upon, which loans are made for asylum purposes; (3) the establishment of a central laboratory in connexion with asylums; (4) the introduction of a system of boarding out of persons of unsound mind; and (5) the assimilation of the capitation grant payable in the case of patients maintained in auxiliary asylums established under Section 76 (1) of the Local Government Act, 1898, to that payable for patients in district asylums. In respect to (1) the amount of the grant in Ireland is the same as that payable in England and Scotland, and a proposal to increase it could only be considered in its application to the United Kingdom as a whole. Legislation would be necessary to give effect to the recommendations in (2), (4), and (5), and I am unable to undertake that such will be introduced during the present session. There are no funds available at present for the establishment of a central laboratory (3).

*Whisky Blends.*

Mr. WEIR asked the President of the Board of Agriculture whether he has received a copy of a resolution passed at a recent meeting of the Wester Ross Farmers' Club urging the Government to take measures to stop the practice of describing and selling as malt whisky blends of malt with raw grain or German spirits; and, if so, whether he would state what action it was proposed to take in the matter?—Mr. GERALD BALFOUR, replying, said: I am requested by Lord Onslow to answer this question. I have not seen a copy of the resolution referred to by the hon. Member, but if a complaint that a breach of the Merchandise Marks Act has been committed in a specific case is submitted to me in accordance with the regulations made under Section 2 of the Merchandise Marks Act, 1891, I will give it my careful consideration.

*Record of Cancer in India.*

Mr. WEIR asked the Secretary of State for India whether the Government of India had yet arranged to have cases of cancer recorded separately in dispensary and hospital returns.—Mr. BRODRICK replied: The revised returns provide a separate column for cancer cases but I cannot say if they have actually been brought into operation. The Government of India has the matter in hand.

FRIDAY, FEB. 12TH.

*Health of Post Office Staff.*

Mr. CLAUDE HAY asked the Postmaster-General whether the room containing the A and B Divisions Central Telegraphs had been reported as being in a sanitary condition, with good lighting arrangements, and free from overcrowding; and whether, as the officers of the Post Office Medical Department were responsible to the Postmaster-General for the safeguarding of the health of the staff he would state when the last inspection of this instrument-room took place.—Lord STANLEY replied: The chief medical officer to the Post Office, who has visited the room in question to-day, reports that it is in a sanitary condition and not overcrowded. Owing to the lofty building opposite the electric light has to be used in some parts of the room, but the arrangements made for this purpose are all that could be desired. He has received no complaints from the staff regarding the room. His last previous inspection was made a few months ago.

MONDAY, FEB. 15TH.

*Nursing in Ireland.*

Mr. PATRICK O'BRIEN asked the Chief Secretary to the Lord Lieutenant of Ireland whether he would give the names of the institutions in Ireland considered competent by the Local Government Board to give certificates for trained nurses within the meaning of the first portion of the Nursing Order; the names of the institutions in Ireland considered competent to give certificates for qualified nurses within the meaning of the second portion of said Order; and the position of nurses (who had been in the service of boards of guardians previously to the said Orders and whose service had been satisfactory) as to promotion to other offices, increase in salaries, or appointment to posts in other unions.—Mr. WYNDHAM answered as follows: There is no official record kept of institutions fulfilling the requirements of Articles 2 (*a*) and 2 (*b*) of the Order in question. The claims of a particular hospital or institution are only considered as the necessity arises in connexion with the registration of a nurse or upon the application of the authorities of the hospital. Hence there may be, and doubtless are, hospitals which would be held by the Board to be competent to certify nurses as trained or qualified should the occasion for making inquiry arise. Nurses whose employment in union hospitals had been sanctioned by the Board prior to the issue of the Order have not been disturbed in office; their rights have been carefully preserved to them. In no case has promotion or increase of salary been refused to any such nurse on the ground that she did not possess the qualifications prescribed by the Order.

*Sanitary Inspectors.*

SIR WALTER FOSTER asked the President of the Local Government Board whether he could state the number of persons seeking certificates of competency as sanitary inspectors who have been examined in each year by the Board of Examinations constituted by the Local Government Board under Section 108 of the Public Health (London) Act, 1891, and the number to whom certificates of competency have been granted in each year.—Mr. LONG replied: I am informed that the numbers are as follows:—

| Year. | Number of applicants for certificates. | Number of certificates granted. |
|---|---|---|
| 1899 ... ... ... | 18 | 16 |
| 1900 ... ... ... | 21 | 12 |
| 1901 ... ... ... | 27 | 24 |
| 1902 ... ... ... | 70 | 57 |
| 1903 ... ... ... | 69 | 46 |

*Inspection of Pauper Children.*

Mr. TENNANT asked the Secretary for Scotland whether, in view of the fact that boarded-out pauper children in Scotland are not inspected systematically by the general superintendents of poor under the Local Government Board, he would consider the expediency of having the children periodically inspected, preferably by lady inspectors under the Local Government Board, as in England and in Ireland.—Mr. GRAHAM MURRAY answered: I am informed by the Local Government Board for Scotland that complaints in regard to children boarded out are of extremely rare occurrence. The subject has been before the Departmental Committee on Medical Relief in Scotland and when the report of that committee is issued the Board will consider whether any action on the lines indicated is necessary or advisable.

*Sophistication of Spirits.*

Mr. KILBRIDE asked the Chancellor of the Exchequer whether in view of the fact that English spirit simply reduced, coloured, bottled, and labeled is every week being made up and sent out by itself as Irish or Scotch whisky according to the needs of the customer; that this takes place in the bonded warehouses in this country with the cognisance of the Excise officials who are cautioned not to interfere; and that such so-called Scotch whisky is obtained from such materials as molasses, glucose, rice, and sugar, he would give instructions that such alcoholic drinks should be properly described.—The CHANCELLOR OF THE EXCHEQUER replied: The matter referred to by the hon. Member is not one that I can deal with adequately in reply to a question in this House, but I may say that the object desired could not be effected by the issue of instructions by the Chancellor of the Exchequer.

Mr. KILBRIDE: Has the right hon. gentleman seen letters in the press signed by a revenue officer? The statements in question are based on his authority.—The CHANCELLOR OF THE EXCHEQUER: I have not seen these letters and the revenue officer ought not to have written them. My answer is based upon communications which I have had from the Board of Inland Revenue whose experience is very considerable in this matter.

TUESDAY, FEB. 16TH.

*Lead Poisoning.*

Mr. COGHILL asked the Home Secretary whether he could state the total number of deaths in 1903 from lead poisoning in the china and earthenware trade and in the trade of house painters and plumbers; and whether he proposed to institute any legislation this session with regard to the trade of house painters and plumbers.—Mr. AKERS-DOUGLAS, in reply, said: The number of deaths from lead poisoning in the pottery trade in 1903 was three. The trade of house-

painters and plumbers does not come within the Factory Act and returns of deaths are not required to be made to the Home Office. It appears, however, from information supplied by the registrars of deaths that there were in the same year in the whole of the United Kingdom 39 cases in which the death of persons stated to be employed in this trade was attributed directly or indirectly to lead poisoning. I do not propose to introduce legislation this session with regard to this trade.

# Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ACLAND, H. T. D., F.R.C.S. Eng., has been appointed Honorary Surgeon to the Christchurch Hospital, New Zealand.

BELGRAVE, T. B., M.D. Edin., has been appointed Inspector of Pearl Fisheries at Sharks Bay, West Australia; also to be District Medical Officer and Public Vaccinator at Denham.

BENNION, J. M., M.B. Cantab., has been appointed Junior House Surgeon to the Radcliffe Infirmary, Oxford.

BERRY, ROBERT SEWERS, M.R.C.S., has been appointed Medical Officer of Southport, Queensland, Australia.

CURL, SYDNEY W., M.A., M.B. Cantab., M.R.C.P. Lond., has been appointed Pathologist and Bacteriologist to the North-Eastern Hospital for Children, Hackney-road.

EWART, D., M.B., B.S. Edin., F.R.C.S.E., has been appointed Certifying Surgeon under the Factory Act for the Chichester District of the county of Sussex.

FOSTER, C. W., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Radcliffe Infirmary, Oxford.

GARDNER, A., M.B., C.M. Edin., has been re-appointed Medical Officer of Health for the Kirbymoorside District of Ryedale, Yorkshire.

GIBSON, A. G., M.B., B.Ch. Oxon., has been appointed House Physician to the Radcliffe Infirmary, Oxford.

HOLLICK, HUBERT HARRY, M.R.C.S., L.R.C.P. Lond., has been appointed Acting Medical Officer for the Care of Lepers detained in the Lazaret at Stradbroke Island, Queensland, Australia, during the absence of the Medical Officer, and Acting Superintendent of the Institution for Inebriates at Dunwich during the absence of the Superintendent; also to be Acting Medical Superintendent of the Dunwich Benevolent Asylum during the absence of the Medical Superintendent.

IVENS, FRANCES, M.S. Lond., has been appointed Surgical Assistant to the New Hospital for Women.

MANNING, RICHARD BEATTIE, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Wells (Somerset) District Cottage Hospital.

MARSH, C. J., L.R.C.P. Edin., M.R.C.S., has been appointed Certifying Surgeon under the Factory Act for the Yeovil District of the county of Somerset.

MARSHALL, J. COLE, M.B., F.R.C.S. Eng., has been appointed Clinical Assistant to the Chelsea Hospital for Women.

MORGAN, EDWARD H., M.R.C.S., has been appointed Officer of Health of Hamilton District, Tasmania.

PENNY, HENRY J., L.K.Q.C.P. Irel., has been appointed Officer of Health of St. Helens, Tasmania.

SNELL, SIDNEY H., M.D., B.S. Lond., has been appointed Assistant Anæsthetist to the Royal Ear Hospital, Soho.

WATSON, GEORGE, M.B., Ch.M. Edin., has been appointed Officer of Health of Burnie District, Tasmania.

WATSON, J. F., M.B., M.Ch. Melb., has been appointed Assistant Medical Superintendent of the Hospital for the Insane, Toowoomba, Queensland, Australia.

# Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

ABERDEEN, KINGSEAT ASYLUM.—Assistant Medical Officer. Salary £110 per annum, with board.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham-road, S.W.—Assistant Physician. Also Assistant Surgeon.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Clinical Assistant. Honorarium at rate of 52 guineas per annum.

BIRMINGHAM, GENERAL HOSPITAL.—Surgical Casualty Officer. Salary £50 per annum, non-resident.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £100, with board, residence, and washing.

BURTON-UPON-TRENT, COUNTY BOROUGH OF.—Medical Officer of Health and Public Analyst. Salary £400 per annum.

CANCER HOSPITAL, Fulham-road, London, S.W.—Surgical Registrar. Honorarium £26 5s. per annum.

CARMARTHEN, JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and washing.

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon, unmarried. Salary £70 per annum, with board, lodging, and washing.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House Surgeon, single. Salary £80 per annum, with board, lodging, and washing.

CROYDON GENERAL HOSPITAL.—Senior and Junior House Surgeons, unmarried. Salaries £105 and £60 respectively, with board, laundry, and residence.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary £100, with board, residence, and washing.

DUDLEY, GUEST HOSPITAL.—Senior Resident Medical Officer. Salary commencing £100 per annum, increasing to £120, with board, residence, attendance, and washing. Also Assistant House Surgeon for six months. Salary £40 per annum, with residence, board, and washing.

EAST INDIAN RAILWAY.—Assistant Medical Officer. Salary commencing at Rs.400 per mensem.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Surgeon for six months. Honorarium of £25, with board, residence, &c. Also Medical Officer for the Casualty Department for six months, renewable. Salary at rate of £100 per annum.

GESTO HOSPITAL, Isle of Skye.—Resident Medical Officer. Salary £200 per annum, with house, coals, light, and taxes.

GLASGOW ROYAL HOSPITAL FOR SICK CHILDREN.—Resident House Surgeon. Salary at rate of £50 per annum, with board and laundry.

GORDON HOSPITAL FOR FISTULA, &c., Vauxhall Bridge-road, S.W.—Honorary Anæsthetists.

HOSPITAL FOR EPILEPSY AND PARALYSIS AND OTHER DISEASES OF THE NERVOUS SYSTEM, Maida Vale.—Resident Medical Officer for six months. Salary at rate of £50 a year, with board and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—House Physician, unmarried, for six months. Salary £20, with board and residence.

HOSPITAL FOR WOMEN, Soho-square, London, W.—House Physician for six months. Salary £30.

LEEDS, HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Assistant Physician.

LIVERPOOL CHILDREN'S INFIRMARY.—Assistant House Surgeon for six months. Salary £22 10s., with board and lodging.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Assistant Resident Medical Officer for four months. Salary at rate of £50 per annum, with board, residence, and washing.

READING, ROYAL BERKSHIRE HOSPITAL.—Assistant House Surgeon for six months. Salary £60 per annum, with board, lodging, and washing.

ROCHESTER, ST. BARTHOLOMEW'S HOSPITAL.—Assistant House Surgeon for six months. Salary at rate of £100 per annum.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace-road, S.W.—Attending Medical Officer.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Head Dispenser.

SALFORD ROYAL HOSPITAL.—Junior House Surgeon for six months. Salary £70 per annum, with board and residence.

ST. MARY'S HOSPITAL, Paddington, W.—Resident Casualty House Surgeon for six months. Salary £100 per annum, with board and lodging.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Honorary Dental Surgeon.

WEST BROMWICH DISTRICT HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, and washing.

WEST LONDON HOSPITAL, Hammersmith road, W.—House Physician and House Surgeon for six months. Board and lodging provided.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fourth Assistant Medical Officer. Salary £150, rising to £180, with board, &c. Also Fifth Assistant Medical Officer. Salary £140, rising to £160, with board, &c.

WEST RIDING OF YORKSHIRE.—Bacteriologist and Assistant to County Medical Officer. Salary £250 per annum, rising to £300.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of vacancies as Certifying Surgeons under the Factory Act at Hornsea in the county of York, at Aughnacloy in the county of Tyrone, at Falmouth in the county of Cornwall, and at Broughton Astley in the county of Leicester.

# Births, Marriages, and Deaths.

## BIRTHS.

O'LEARY.—On July 21st, 1903, at Glenelg, South Australia, the wife of A. P. Evelyn O'Leary, M.R.C.S. & R.C.P., of a daughter.

POCOCK.—On Jan. 17th, at Quetta, India, the wife of Major Herbert Innes Pocock, R.A.M.C., of a son.

## MARRIAGES.

BRIDGE—DAVIS.—On Feb. 11th, at St. Matthew's Church, Ealing, John Crosthwaite Bridge, M.R.C.S., L.R.C.P., to Bessie Coleridge Davis, eldest daughter of the late Gateward Coleridge Davis, Barrister-at-Law, Inner Temple.

CAZENOVE—CRAWLEY.—On Feb. 13th, at All Souls Church, Leeds, William Reginald Cazenove, M.R.C.S., L.R.C.P. Lond., to Amy, younger daughter of Edward W. Crawley, of Leeds and Ilkley.

## DEATHS.

HIND.—On Feb. 16th, at Blytheholme, Harrogate, Annie Charlotte, wife of Henry Hind, F.R.C.S.

MARVAL.—On Jan. 4th, at S. Catherine's Hospital, Cawnpur, U.P., Alice M. Marval, L.R.C.P.S. Ed., of pneumonic plague.

STARLING.—On Feb. 11th, at The Rowans, Brook-green, John Starling, M.R.C.S., L.R.C.P., in his 72nd year.

***N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.***

# Notes, Short Comments, and Answers to Correspondents.

## THE OLD-FASHIONED APOTHECARY'S BILL.

In another column will be seen some comments upon a copy of an apothecary's bill received from Dr. R. P. Smallwood of Little Waltham, near Chelmsford. By a coincidence during this same week we received from Mr. H. O. Huskisson, of 5, Gordon-square, W.C., a copy of an apothecary's bill rendered in 1806 by Mr. A. Robinson to an invalid—Mrs. Huskisson. From this bill it would seem that Mrs. Huskisson took a draught and a pill every day from Dec. 2nd, 1806, to the 19th, except upon the 14th. Upon the 6th she had a box of pills, whether of the same quality or not is not stated, and on the 7th she took an extra draught. In the seventeenth and eighteenth centuries it was evidently the medical man's medicine rather than his advice that was paid for and we doubt if public intelligence has got as far beyond this point as it should. There is still a widespread impression, not only among the less educated portion of the community, that there is no use in taking counsel from a medical man unless you also swallow something. And if patients do not in the twentieth century swallow quite so many drugs on medical instruction as they did 200 years ago they swallow more upon their own initiative. Children may hate medicine but the world at large loves it, and now that the medical profession has become more chary in prescribing formulæ the enterprising druggist and the unscrupulous quack are prepared to fill the vacancy.

## GARLIC AS A REMEDY.

*To the Editors of* THE LANCET.

SIRS,—Having read Dr. W. C. Minchin's interesting letter in THE LANCET of Feb. 13th, p. 481, upon the action of garlic in tuberculosis, it may interest some of your readers to know that garlic has been a remedy in common use for certain diseases in Wales for a great number of years; in fact, it is only one of a large number of herbs used by the natives, the therapeutical action and uses of which have been probably handed down from father to son since the days of the Druids who were the physicians as well as priests in their day and were good botanists. I inclose a recipe in Welsh with English translation taken out of a book compiled by Lewis Morris, formerly of Anglesey (Môn) and an ancestor of Sir Lewis Morris (author of the "Epic of Hades"). The book from which I take the extract is called "Rhodd Meistr i'w Brentis" ("The Master's Gift to his Apprentice"), published in 1812 by R. Jones at Dolgelly.

"Rhag clefyd y garreg, neu garchar dwfr cymmer thyme, parsley, topiau ffenigl, a'r ddalen pum dalen, chwech neu saith o ewinedd *garlleg*; pwywch hwynt ynghyd, ac ystreiniwch i win gwyn, neu gwrw da; yfwch o hono bob nos a bore."

*Translation of above.*

For *the disease called gravel* (stone) or stoppage of water (stricture) take thyme, parsley, fennel tops, and the five-leaved leaf, and six or seven claws of garlic; powder them together and strain with white wine or good ale; let the patient drink of this night and morning.

In addition to the above, in another book published over 50 years ago by Daniel Evans, druggist, of Llandyssul, Ceredigion, I found the following, also in Welsh: "Garlic should be raised to dry in August. They are useful to remove flatulence."

In the first-named book there is also a recipe for a cough mixture which contains garlic, horehound, &c. Some years ago the juice of garlic mixed with whisky was a popular remedy for phthisis and quite recently I have heard it lauded as a cure for hysteria, probably on account of its strong odour.

I am, Sirs, yours faithfully,
Y. M. JONES-HUMPHREYS.

Cemmaes, Montgomeryshire, Feb. 15th, 1904.

## PREHISTORIC THERAPEUTICS.

In a recent number of the *Revue de l'Ecole d'Anthropologie de Paris* M. Manouvrier has dealt with certain markings which he and others have observed on neolithic skulls. The markings usually take the form of straight or T-shaped dotted lines apparently due to localised periosteal inflammation. It has been supposed that they may be connected with unknown ceremonial rites but the probabilities are in favour of their having rather a therapeutical interest. M. Manouvrier refers to statements which he has found in ancient surgical writings where it is laid down that "to regulate the humidity of the skull," upon which many maladies were thought to be dependent, the cautery should be lightly applied at numerous points in the occipital or the frontal region. He suggests that this use of the cautery had its origin in prehistoric surgery and that the skulls which he describes afford evidence of the fact. The skulls found marked are all apparently those of females, which leads us to infer that primitive man adopted rather heroic methods of treating the attacks of headache or of the vapours from which the feminine members of his family suffered.

## MR. BLANK OF PICCADILLY CIRCUS.

WE have received a copy of the *Barbados Advocate* wherein is an advertisement calling attention to the scientific claims of one, "G. Thomson Blank (late of Piccadilly-circus, London)," who is described in the heading as dental surgeon to His Excellency Sir Frederic Hodgson, K.C.M.G., Governor of Barbados, Lady Hodgson, and Miss Hodgson. The advertisement is the usual thing: the artificial teeth are the finest and most life-like, the treatment is painless, kind, and sympathetic, the most modern instruments and appliances are used, &c. In all respects the advertisement is, in fact, the usual advertisement, save for the heading, and we admit that we are curious to know if Mr. Blank has authority for describing himself as dental surgeon to the Governor of Barbados—His Majesty's representative in our colony. If he has not the necessary authority he ought to be made to expunge the line from his advertisement. If the advertisement is in order Sir Frederic Hodgson, K.C.M.G., appears to us not to be a very prudent man.

## RADIANT HEAT AND LIGHT TREATMENT.

*To the Editors of* THE LANCET.

SIRS,—For some little time past I have been suffering from gouty arthritis of both knees, both shoulders, elbows, and wrists and now contemplate trying the Dowsing radiant heat and light treatment.

Can any of your readers kindly answer the following questions? 1. Is it of any good in such cases? 2. Is there any danger in the treatment? 3. Is any special getting ready of the skin over the joints required? My joints have been painted with iodine and the skin is tender over them. 4. How many baths are usually taken? 5. After having had a bath are any extra precautions necessary to be taken to avoid chill?

I am, Sirs, yours faithfully,
M.D. BRUX.

Feb. 13th, 1904.

## MOTOR CARS FOR MEDICAL MEN.

*To the Editors of* THE LANCET.

SIRS,—There is one point in connexion with motor-cars to which attention does not appear to have been called either in THE LANCET or in any other medical journal—viz., the risk of injury, of even severe injury, to the chauffeur in the act of starting. I have seen many cases myself. Usually it is a sprain of the wrist or a bruise or laceration of the back of the hand caused by a "back-fire." The wrist is sometimes actually fractured; but other parts, such as the face, may be cut; and the muscular efforts occasionally required to start a reluctant engine certainly sprain the lumbar muscles and, I am convinced, even the heart of not a few automobilists. It is chiefly in the case of single-cylinder engines that these accidents are frequent. But I doubt whether any petrol cars are quite exempt from occasional troubles of the kind. It is difficult to get anyone interested in the motor-car trade or any owner conceited about his own motor car to acknowledge the whole truth about this matter. And a person not acquainted with motors, judging merely by the comparative ease with which he usually sees two- and four-cylindered cars started in the street when the engine has not long been stopped and is still warm, can form no idea of what the unfortunate chauffeur may have had to go through before starting out from the coachhouse or garage. The risk of heart strain seems to me really serious; and as it is quite easy for any automobilist to do as I have done and have his car fitted with a starter which will not suffer from back-fire and which can be operated even by a lady or a child I beg leave to make this communication.—I am, Sirs, yours faithfully,

London, Feb. 15th, 1904. C. B. KEETLEY.

## A CAT STORY.

THE following is taken verbatim from the New York *Electrical Review* of Feb. 6th, the note within brackets being, of course, by the editor of that well-known technical journal.

CAT ELECTRICITY CAUSES CATASTROPHE.

*To the Editor of the Electrical Review.*

There is an article in your paper describing a paper read at the meeting of the New York branch of the Society of Chemical Industry on "Electrostatic Influences on Inflammable Gases." I should like to state for the benefit of those who did not read the article I refer to that an explosion occurred recently at a home for lost cats through the static discharge from the back of a large tom. It is the system of this place to put the cats which are to be done away with into an iron box which is filled with gas. The explosion occurred when the attendants were putting the large tom into the case. He clung to the tasket and in shaking him off generated enough static electricity to ignite the gas, causing the explosion.

Dover, N.J., Jan. 30th. R. RUSTLEWHITE.

[The explosion referred to above occurred at New York and the disastrous results are given in one of the daily papers as follows: "Three men were hurt; one, Theodore Goodenough, perhaps fatally, and all the cats were killed more or less summarily. Goodenough dumped three basketfuls of cats into the 'despatch,' while companions held one of the covers up by means of a tackle attached to the glass lid. The cats in these baskets were well behaved, but basket No. 4 contained a black cat. As soon as this animal was dropped there was a flash and a bang and a shower of cats and men."—ED.]

## THE REFUGE ASSURANCE COMPANY, LIMITED, AND ITS MEDICAL ADVISERS.

*To the Editors of* THE LANCET.

SIRS,—I notice in THE LANCET of Jan. 30th, p. 345, a letter from the Law Union and Crown Insurance Company to its medical officers with your comments thereon. I should like to bring to your notice the inclosed slip from the Refuge Assurance Company. It was brought to me by one of their agents who said that if I would insure my life with them they would send me proposers for examination before acceptance by the company. I replied that this was a very one-sided agreement, but on promising to think the matter over he produced the inclosed. I then told him that it settled the matter as my fee was always a guinea, as no matter what the sum assured the amount of trouble and responsibility to me was the same. He replied that other medical men did the work for those fees and that one of them was in this town and he had never heard any objection made to them. After your remarks the other day it is superfluous of me to ask your opinion as to whether I did right, but I should like to know whether it is only the poorer companies who do this sort of thing to their medical officers. Alas, that such things should be or that such poor companies could exist.

I am, Sirs, yours faithfully,

Feb. 16th, 1904. "MONAS."

*** "The inclosed slip" sets out the following scale of fees: 5*s.* if the sum assured be £100 or under; 10*s.* for sums over £100 and under £200; and 20*s.* for any sum over £200. These figures speak for themselves.—ED. L.

## THE BRITISH VIAVI CO.

*To the Editors of* THE LANCET.

SIRS,—A lady friend of mine recently replied to the following advertisement in the *Irish Times* (Dublin):—

LADY, 30-35, well educated, capable of holding a responsible Business Position; good abilities, more important than any special experience; references and security. Apply, by letter, T 693, this office.

She received a reply asking her to call at the Dublin branch of the British Viavi Co., Limited, in Westland-row, Dublin (head offices, Regent House, Regent-street, W., formerly 52, Oxford-street, W.), and was interviewed by a lady who represented herself as the agent in Ireland, a manageress of the company. After a conversation extending over a couple of hours regarding the wonderful qualities of Viavi she learned that the company wanted a lady to open a branch for them in Belfast and that the lady would have to deposit with the company the sum of £300 *in cash* as security, for which she was to receive nothing save an acknowledgment.

My friend was offered in the alternative a position as canvasser for the Viavi productions on a commission of 25 per cent. To qualify for the latter she was asked to pay a fee of five guineas for instructions (to be returned as guaranteed commission), and to purchase certain charts at a further fee of five guineas.

I inclose you one of their pamphlets. Can you tell me, in confidence, or through your columns, anything about the company?

The request to deposit £300 and the fees for "instruction" and "charts" aroused the suspicion of my friend.

I am, Sirs, yours faithfully,

Dublin, Feb. 11th, 1904. CAVE.

*** If our correspondent will consult our issue of Feb. 13th, 1904, p. 482, he will see what we think about the Viavi treatment.—ED. L.

## CLUB PRACTICE MEDICINE.

*To the Editors of* THE LANCET.

SIRS,—There is another phase of the question which "Inquirer" raises in your last issue—that of serum therapy. Who would like to treat a case of diphtheria, of even moderate severity, without using the antitoxin, and what can one call it but medicine? The expense of a minimum number of injections would be nearly twice the amount of the usual annual payment of each club patient.

I am, Sirs, yours faithfully,

Feb. 16th, 1904. CLUB SURGEON.

*Poor-law Appointment.*—The examination referred to by our correspondent is one in medicine, surgery, and midwifery, so we think that one holding a certificate of having passed such an examination would be eligible for a Poor-law appointment, but as the Act governing such appointments is capable of different interpretations it might be as well for him to consult his legal adviser.

*Mr. E. Hughes.*—Our correspondent will find some information on the matter about which he inquires in the lecture by Dr. J. F. Woods, which appears in the present number of THE LANCET. He might also consult any general psychological treatises as well as various works on hypnotism.

*Nemo* should consult one of the recognised agents for the sale and transfer of practices or his solicitor. Every point that he raises is one for special arrangement.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, Feb. 18th, 1904.

| Date | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Rainfall. | Solar Radiation Vacuo. | Maximum Temp. Shade. | Min. Temp. | Wet Bulb. | Dry Bulb. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Feb. 12 | 29·86 | S.W. | ... | 53 | 51 | 37 | 38 | 39 | Fine |
| ,, 13 | 29·18 | W. | 0·40 | 82 | 51 | 39 | 45 | 48 | Stormy |
| ,, 14 | 29·21 | W. | ... | 63 | 48 | 46 | 44 | 46 | Cloudy |
| ,, 15 | 29·33 | S.W. | 0·09 | 53 | 44 | 34 | 34 | 36 | Foggy |
| ,, 16 | 29·51 | W. | ... | 70 | 45 | 36 | 35 | 37 | Hazy |
| ,, 17 | 28·86 | W. | 0·13 | 46 | 40 | 37 | 37 | 37 | Raining |
| ,, 18 | 29·42 | N.E. | 0·09 | 63 | 40 | 34 | 34 | 35 | Overcast |

# Medical Diary for the ensuing Week.

## OPERATIONS.

### METROPOLITAN HOSPITALS.

**MONDAY (22nd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

**TUESDAY (23rd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.).

**WEDNESDAY (24th).**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.20 P.M.).

**THURSDAY (25th).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

**FRIDAY (26th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

**SATURDAY (27th).**—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.). Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (22nd).**—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (20, Hanover-square, W.).—7 P.M. Council. 8 P.M. Paper:—Mr. C. Robbins and Mr. J. T. Carter: Further Notes on some Prehistoric Skulls. Casual Communication:—Dr. H. B. Gardner: Variations in the Atmospheric Pressure and their Influence upon the Inhalation of Anæsthetics.

MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Dr. T. B. Hyslop: The Progressive Paralysis of the Insane.—Dr. C. W. Buckley: Brachial Neuritis.

**TUESDAY (23rd).**—THERAPEUTICAL SOCIETY (Apothecaries' Hall, Blackfriars).—3.30 P.M. Council Meeting. 4 P.M. Papers:—Dr. J. Burnet (Edinburgh): Ichthoform and Ichthargan, an Account of their Therapeutic Applications.—Mr. W. McAdam Eccles: Some Remarks respecting Trusses and their Use.

THE LONDON LICENTIATES' AND MEMBERS' SOCIETY (Wimpole Hotel, 63, Wimpole street, W.).—4 P.M. Meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper:—Dr. G. C Garratt: Observations on Metabolism in the Febrile State in Man.

**WEDNESDAY (24th).**—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Clinical Evening. Exhibition of Cases.

**THURSDAY (25th).**—HARVEIAN SOCIETY OF LONDON (St. Mary's Hospital).—Clinical Meeting. Patients will be in attendance at 3.15 P.M.

CHILDHOOD SOCIETY (Library of the Sanitary Institute, 72, Margaret-street, W.).—8 P.M. Lecture:—Mr. H. Hall: On Some Elementary Aims in Education.

**FRIDAY (26th).**—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Exhibition of Clinical Cases followed by Discussion. Patients will be in attendance from 8 P.M. to 9 P.M.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (22nd).**—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. A. Keith: The Structure and Evolution of the Auricles of the Heart, and of a Competent Valvular Mechanism round their great Venous Orifices. (Hunterian Lecture.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Practical Surgery.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr J. M. H. Macleod: Clinique. (Skin.) 5.15 P.M. Dr. W. S. A. Griffith: Gonorrhœa in Women.

UNIVERSITY OF LONDON.—5 P.M. Lecture: Dr. A. E. Wright: Physiology of Immunisation.—On Anti-staphylococcus Inoculation.

**TUESDAY (23rd).**—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. M. Moullin: Posterior Displacement of the Uterus.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. L. Williams: Clinique. (Medical.) 5.15 P.M. Dr. E. Cautley: The Thymus and Lymph Glands.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. R. Russell: Subacute Combined Spinal Disease.

**WEDNESDAY (24th).**—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. A. Keith: The Structure and Evolution of the Auricles of the Heart, and of a Competent Valvular Mechanism round their great Venous Orifices. (Hunterian Lecture.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Russell: Pneumonia.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. H. L. Barnard: Clinique. (Surgical.) 5.15 P.M. Mr. S. Stephenson: Some of the Newer Remedies in Eye Disease.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. C. T. Williams: The Compressed Air Bath and its Uses.

LONDON TEMPERANCE HOSPITAL (Hampstead-road, N.W.).—4 P.M. Lecture:—Diseases of the Stomach. (Post-Graduate Course.)

**THURSDAY (25th).**—ROYAL COLLEGE OF PHYSICIANS OF LONDON (Pall Mall East).—5 P.M. Dr. W. Williams: Deaths in Childbed, a Preventable Mortality.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Keetley: Dislocations of the Elbow.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Mr. E. Clarke: Errors of Refraction, their Diagnosis and Treatment.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Mr. C. H. Roberts: Cases from the Wards.

CHARING CROSS HOSPITAL.—4 P.M. Mr. Gibbs: Demonstration of Surgical Cases. (Post-Graduate Course.)

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—5 P.M. Dr. T. D. Lister: The Treatment of Advanced Phthisis at Home. (Post-Graduate Course.)

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.). 6.15 P.M. Dr. M. Dockrell: Acne. (Chesterfield Lecture.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Lister: The Eye Signs of Syphilis in Children.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Dr. A. Giles: Significance of Signs.

**FRIDAY (26th).**—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. A. Keith: The Structure and Evolution of the Auricles of the Heart, and of a Competent Valvular Mechanism round their great Venous Orifices. (Hunterian Lecture.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. J. Reece: Beri-beri.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Clinique.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. Ballance: Surgery of the Nervous System.

## EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.*

*Lectures, original articles, and reports should be written on one side of the paper only,* AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

***We cannot prescribe or recommend practitioners.***

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of* THE LANCET *should be addressed "To the Manager."*

***We cannot undertake to return MSS. not used.***

## MANAGER'S NOTICES.

### THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. II. of 1903, which was completed with the issue of Dec. 26th, were given in THE LANCET of Jan. 2nd, 1904.

### VOLUMES AND CASES.

VOLUMES for the second half of the year 1903 are now ready. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

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